# GC6-6 // GC6-7 INSTRUCTION BOOK // PARTS CATALOGUE



3-FACH-TRANSPORT DOPPELSTEPPSTICH-NÄHMASCHINE

**TYPICAL** 

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#### 1. Brief introduction

Model GC6-6 and GC6-7 medium and heavy duty lockstitch sewing machine both are constructed with the mechanisms of single needle, link thread take-up with needle bearing, precise spiral bevel gear transmition, big rotating hook with double thread capacityand forward or reverse sewing. They have the same advantages of small moment of torsion, low noise, feeding smoothly even from sewing single layer to the lap seams with equability of stitch length, beautiful flat stitches in appearance. They are widely used in the factories of suitcase, bag, leather goods, sofa, tarpaulin, cushion, cloth, shoes, cap and labour protection goods.

The main differences between machines of Model GC6-6 and Model GC6-7 are as follows:

The feed mechanism of model GC6-6 is constructed by the top feed of walking presser foot and bottom feed of feed dog. It can be adjusted to achieve the synchronization of top and bottom feed, to eliminate the slippage between top and bottom layers when sewing loose bulge and slippery materials, also, the top feed can be adjusted in differential with the bottom feed for sewing pleat.

Whereas on machine Model GC6-7, the synchronized top feed of walking presser foot, needle feed and bottom feed of feed dog forming the unison feed, which the slippage between material layers could be eliminated absolutely. So that the elastic and slippery materials can be sewn successfully. Most of this machine is the top feed presser foot nearing needle, therefore the cording, lap seaming and folding all are convenient.

### 2. Main specifications

Model	GC6-6	GC6-7		
Max. sewing speed	2000spm			
Max.stitch length	9mm	9mm		
Presser foot lift	6.5mm(13mm when knee controlled)	6.5mm(13mm when knee controlled)		
Max.thickness of material to be sewn	8 layers of leather clothes, at free conditions the thickness of material up to 8mm			
Needle	model DP 17,#18-#22 used for machine Model GC6-6 model DP 17,#18-#24 used for machine Model GC6-7			
Rotating hook	big rotating hook with double thread capacity			
Motor	370w(used for sewing machine only)			

#### 3. Installation and preparation

#### 3.1 Installation

#### 3.1.1 Location of the machine

To ensure a smooth running, the machine Should be located on rigid and flat floor. The insert of rubber mat between machine stand and floor is recommended for further reducing the running noise and vibration.

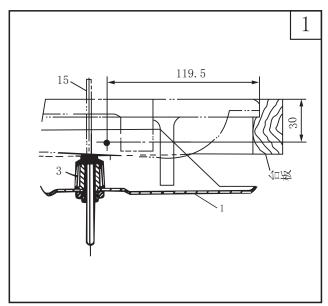
#### 3.1.2 Installing drip pan(Fig.1)

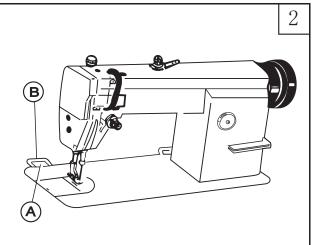
Fix drip pan 1 into the table cutout, aligning knee lifter lifting rod 3 with knee lifter connecting rod 15 of machine head, and to touch it, also maintain dimendions 30 and 119.5mm from nail hole to the table, then drive nails into both sides of the cutout to secure the drip pan.(further see figure on page 56).

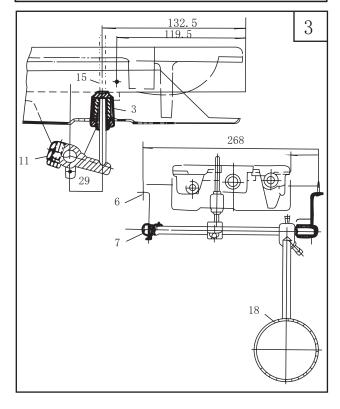
#### 3.1.3 Mounting machine head(Fig.2)

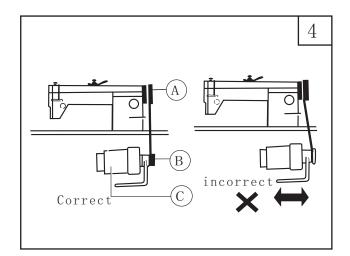
Make the hinge A of machine head engaged with hinge socket B on the table, then turn the machine head freely till it is seated on the frame of table cutout.

- 3.1.4 Mounting rock shaft bracket of knee liter (Fig.3, also see figure on page 56)
- 1) Adjust rock shaft knee plate 18 according to the body of operator, for the convenience to operate.
- 2) Adjust the position of knee lifter assembly according to Fig. 3, then fasten the rock shaft bracket with wood screws 6.



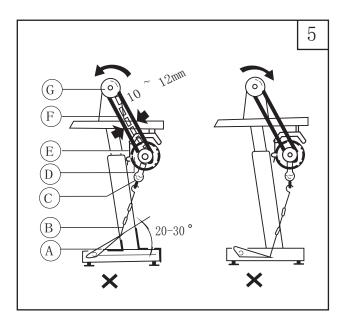




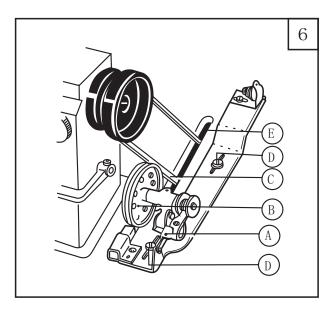


#### 3.1.5 Installing the motor(Fig.4)

Align machin balance wheel belt groove A with motor pulley belt groove B by moving the motor C leftward or rightward. Be sure the belt is not touch with table.



- 3.1.6 Connecting the clutch lever to the pedal (Fig.5)
  - 1) The optimum tilt angle of pedal A with floor is approx. 15 degree.
- 2) Adjust the clutch of the motor so that clutch lever C and draw bar B run in line.
- 3) The machine balance wheel should rotate counterclockwise for normal sewing when view from opposite side of balance wheel G. The motor is rotation in the same direction. The rotation can be reversed by reversing (turn over 180 deg.) The plug of motor.
- 4) Adjust the tension of V-belt F by moving the motor vertically. The proper tension of V-belt is a salck of 10-12mm when the belt is depressed at the belt span by finger.



#### 3.1.7 Installing the bobbin winder(Fig.6)

Align pulley B of bobbin winder with outside of belt and should be kept a proper clearance between them, so that pulley B could be contacted with belt after the stop latch thumb.

lever A depressed, thereby belt drives the pulley B while machine running. After check bobbin winder is in parallel with belt slit E of table, fastened by two wood screws D.

#### 3.1.8 Installing the thread unwiner (Fig.7)

Locate thread unwinder at the right front of the table, note that spool rest may not obstruct when machine head is turned backward, then tightern wood screw C.

#### 3.2 Preparation

#### 3.2.1 Cleaning the machine

Before delivery, the machine parts are coated with rust preventive grease, which may be hardened and contaminated by dust during storage and shipment. This grease must be removed by clean cloth with gasoline.

#### 3.2.2 Examination

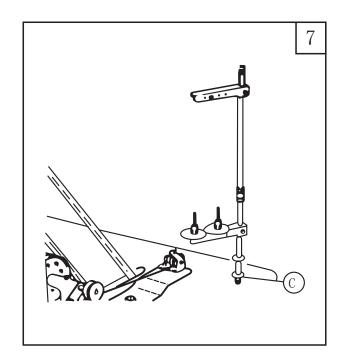
Though every machine is confirmed by strict inspection and test before delivery, the machine parts may be loosed or deformed after long distance transportation with jolt. A thorough examination must be performed after cleaning the machine. Turn the balance wheel to see if there is running obstruction, parts collision, uneven resistance or abnormal noise. If these exist, adjustment must be made accordingly before run.

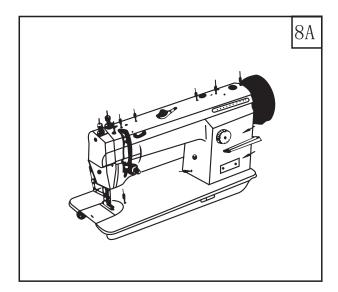
#### 3.2.3 Lubrication

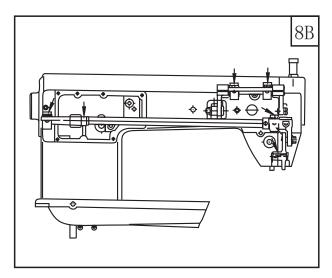
Before machine running, Clean it with soft cloth, then fully lubricate the holes indicated by arrows shown in Fig8 .

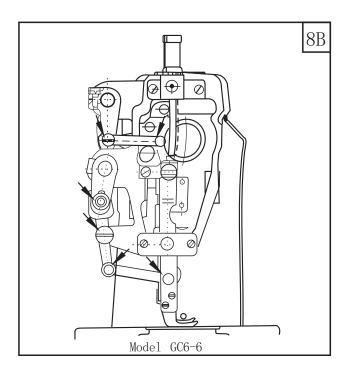
If the machine is in contionus operation, the operator should lubricate it no less than two times a days.

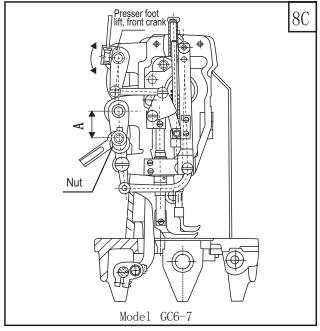
Be sure to use HA-8 Sewing Machine Oil or HJ-7 Machinery Oil.

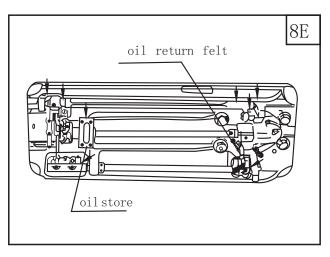






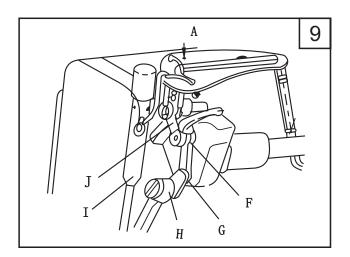




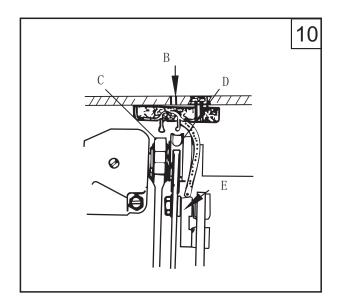


For vaccum sucking needle bar inside oil, see Fig8E. A long oil-return felt should be installed.

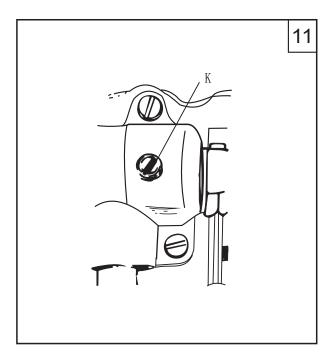
Hook oil store is not filled with lubrication oil before leaving off the factory. fill oil before use.



Oil Hole A up to PartF. G. H. I. J(See Fig9).



Oil Hole B up to PartC. D. E(See Fig10)through 9 oil wick.

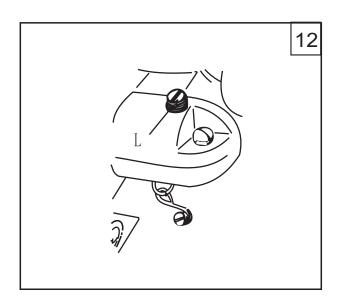


The bevel gear cases in Fig. 11 and Fig.12 are packed with grease, which should be replenished periodically as may be consumed gradually after long time of operation . When replenish, turn off screw plugs L,K first and packed with fresh grease thru screw hole into gear cases then screw on screw plugs. Should the grease in the bevel gear cases been too dirty or partial hardened, it must be changed thoroughly

#### 3.2.4 Trial run

Trial run is required for a new sewing machine, or when the machine left out operation for considerable length of time is used again.

Before the trial run, lift presser foot first, the balance wheel must be rotated in correct direction as mentioned in 3.1.6,3). Run the machine begin at a low speed, as the machine runs well then increasing the speed gradually and up to 2000spm, after a few minutes to stop the machine for examination. As the machine is run sufficiently well then put it into operation



#### 4. Operation

#### 4.1. Selection of thread

Needle thread should be left-twisted. Thread. For bobbin thread, either left or right twisted thread is available.

To identify the twist direction of the thread, hold the thread as shown in Fig.13, twist the thread by right hand in the direction of arrow. If the strand turn to be tight, the thread is the left-twisted, otherwise the thread is right- twisted thread.

# **4.2** Coordination between needle, thread and sewing material

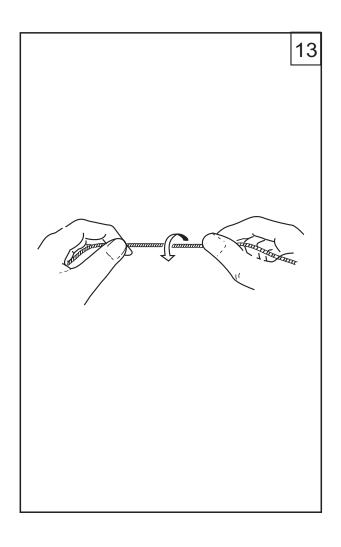
Needle of machine Model GC6-6 is Dp  $\,$  17,  $\,$ #18-#22

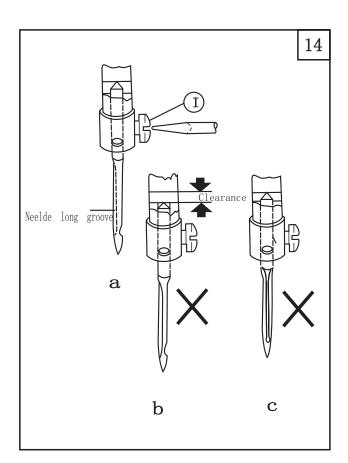
Needle of machine Model GC6-7 is Dp 17, #18-#22

Selection to the needle size should be based upon the thread and material to be sewn.

The following table is for reference

NeedleSize	Kind and number of thread	Material to be sewn
#18	Cotton thread #30-#40	clothes, canvas heavy wool
#19	Linen thread #60-#80	heather cloth, shoes, cap, hand bag
	Polyester thread #20-#40	Heavy fabric,
#21 #22	linen thread #40-#60	leather goods,
#21~#22	glazed thread #40-#60	sofa, suitcase, bag,
	mercerized thread#21-#60	tarpaulin, cushion



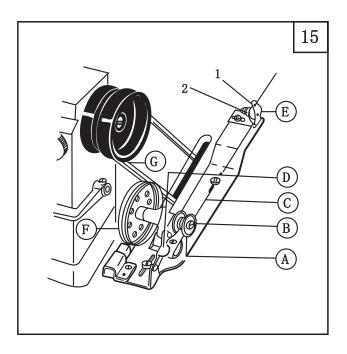


#### 4.3 Installing the needle (Fig.14)

Turn the balance wheel to lift needle bar to the highest position, loosen needle set screw 1, fully insert the needle shank upto the bottom of needle socket, then tighten needle set screw 1.

Note: Fig.14(b): insufficient insertion,

Fig.14(c): wrong direction of long groove.



#### 4.4 Winding the Bobbin thread

- 4.4.1 Winding method (Fig. 15)
  - 1) Install bobbin A to bobbin winder spindle B.
- 2) Pass thread C from spool through the eye 1 on tension bracket E. Pass it between tension discs 2, and then wind the end of the thread a few turns on the bobbin
- 3) Push stop latch thumb lever D down to lock the bobbin, the winder pulley F is thereby pressed on belt G.
  - 4) Start the machine to wind thread.

Note when thread is wound without sewing operation, be sure to keep the presser foot lifted.

5) When thread is fully wound the bobbin winder stop latch automatically release the bobbin winder, thus stopping the winding motion.

#### 4.4.2 Winding adjustment(Fig.16)

1) Wound bobbin thread should be neat and tight, if not, adjust the thread tension by turning tension stud thumb nut A of bobbin winder tension bracket.

Note: nylon or polyester thread should be wound with light tension, otherwise bobbin D might be broketn or deformed.

2) When the wound thread layer does not present a cylindrical shape as in Fig.16a, loosen tension bracket screw B and move tension bracket C leftward or rightward. If thread is wound as shown in Fig, 16b, move the tension bracket rightward, while if thread is wound as shown in Fig. 16c, move the tension bracket leftward, After adequately positioning the tension bracket, tighten screw B.

Donot over fill the bobbin, the optimum capacity of thread will fill about 80% of bobbin outside diameter, this can be adjusted by stop latch screw E.

# 4.5 Threading the needle thread and drawing the bobbin thread

To thread the needle thread, raise needle bar to its highest position, lead the thread from spool and pass it in the order numerically instructed in Fig.17.

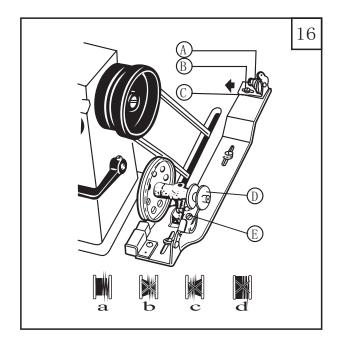
The detail of threading are as follows:

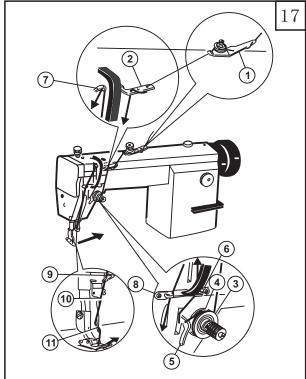
- 1) Lead thread from spool, pass down thru the right side of thread guide plate 1, to left pass up thru middle hole of thread guide plate 1, to left pass thru between two small tension discs and pass down thru the left hole of thread guide plate 1.
- 2) To left pass down thru the right hole, to left up thru middle hole and to left down thru left hole of thread retainer 2.
- 3) Pass down thru between two tension discs, to left and up pass thru the hook of thread take-up spring, turn to left pass thru underneath the slack thread regulator5 (Model GC6-7 is the thread guide), then up pass thru the thread guide 6. and up to left pass thru the hole of thread take-lever 7.
- 4) Turn down to left pass thru the thread guide 8, pass down thru the therad guard 9 of needle bar bushing (lower)(on the machine Model GC6-7 is the lower thread guard 9) and needle bar thread guide 10. Then pass the thread from left thru the eye of needle 11, afterward draw out the thread from needle eye approx 100mm.

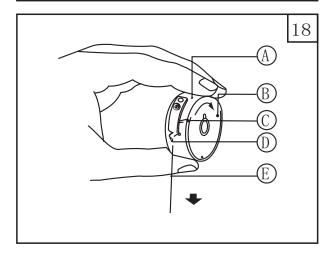
To draw the bobbin thread, hold the tip of the needle thread by hand, turn the balance wheel to lower the needle bar and then, to lift it to its highest position. Pull the needle thread and then the bobbin thread is drawn up. Put the tips of needle and bobbin thread toward from under presser foot.

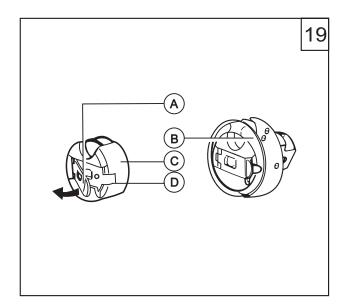
#### 4.6 Setting the bobbin (Fig.18)

- 1) Put bobbin B into bobbin case A.
- 2) Pass the thread thru slit C to lead it underneath the bobbin case tension spring D and out at the notch of spring, draw out thread about 100mm.
- 3) Make sure that the bobbin rotates clockwise when the thread E is drawn, if not ,reverse the bobbin B.



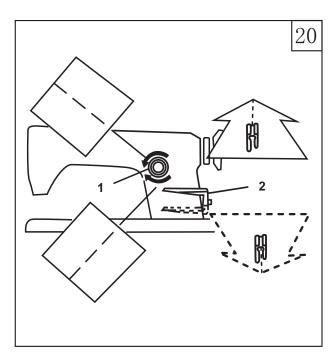






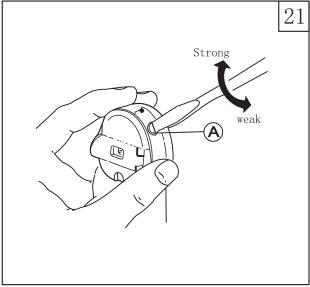
#### 4.7. Installing the bobbin case (Fig.19)

- 1) Lift the needle bar to its hightest position and open the bed slide.
- 2) Fully lift bobbin case latch lever A and holding it by fingers, securely install the bobbin case into the rotating hook B.Note that the bobbin case latch is engaged in the positioning groove of rotating hook spindle.
- 3) When remove the bobbin case from rotating hook, fully lift the bobbin case latch lever A and holding it by fingers first, so that to prevent the bobbin from dropping out from the bobbin case, then gently take the bobbin case out.



#### 4.8. Setting stitch length and reverse sewing (Fig.20)

- 1) Stitch length can be set by turning stitch length regulating dial 1. The stitch length is longer when turning stitch length regulating dial 1 counter-clockwise, and the stitch length is shorter when turning the dial 1 clockwise.
- 2) Sewing reverse when feed reverse lever 2 is depressed, and forward sewing is restored automatically when release the depressing on feed reverse lever 2



### 5. Adjusting thread tension

In principle the thread tension is to be adjusted in accordance with materials, thread and other factors.

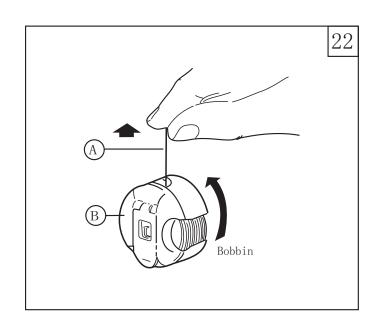
In practice, the thread tension is adjusted according to the stitches resulted. The needle thread tension should be adjusted with referensce to the bobbin thread tension.

To adjust the bobbin thread tension, turn bobbin case tension spring screw A (see Fig.21) clockwise to increase the tension, or turn the screw counter-clockwise to decrease the tension.

It is a common practice to check the bobbin thread tension as shown in Fig. 22. In case of glazed thread #50, hold the end of pulled out thread and to vibrate bobbin case up and down, if the bobbin case fall down slowly, the proper tension is obtained.

The needle thread tension can be adjusted by changing:

- (1) tension of the thread take-up spring,
- (2) swinging range of the thread take-up spring,
- (3) tension of tension disc
- (4) the position of thread guide 6 in fig. 17. All these adjustments will be described as follows.



#### 5.1. Adjusting the thread take-up spring

The normal tension of thread take-up spring is approx. 35-55. The normal swing range of the thread take - up spring is 5-8mm. For sewing light weight materials (with short stitch length), weaken the spring tension and widen the swinging range of spring, while for sewing heavy weight materials, strengthen the spring tension and shorten the swinging range of spring.

5.1.1 Adjusting the thread take-up spring tension(Fig.23)

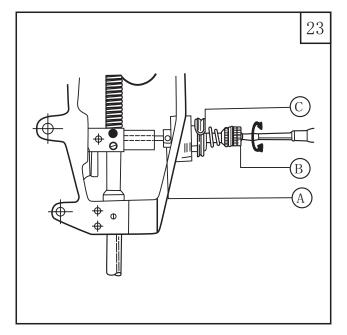
Loosen tension stud set screw A, turn tension stud B clockwise to increase the spring tension, or turn the tension stud counter-clockwise to decrease the spring tension. After the adjustment, be sure to tighten tension stud set screw A.

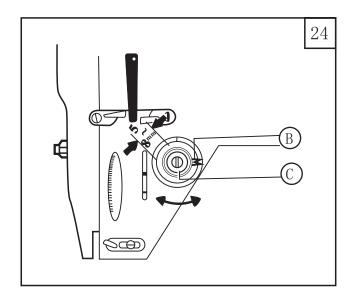
The thread take-up spring tension is about 45g. To attain this, loosen set screw A first, then turn tension stud B counter clockwise to release the tension of thread take-up spring C to zero, and turn tension stud B clockwise until spring C just comes into contact with the stopper on thread take-up spring regulator, then further turn tension stud B clockwise be 1/2 turn. After adjustme-nt, tighten tension stud set screw A.

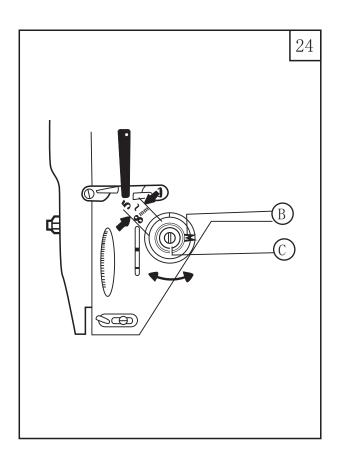
# **5.1.2** Adjusting the swing range of thread take-up spring (Fig.24)

Loosen set screw B, turn tension complete C clockwise to increase the swing range or turn tension complete C counter-clockwise to decrease the swing range. After the adjustment, tighten set screw B.

Before delivery, thread take-up spring is properly adjusted. Re-adjustment is needed only in the case of sewing special material material or with special thread.





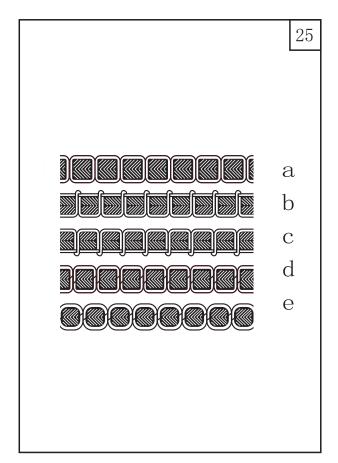


#### 5.2 Adjusting the thread guide

The position of thread guide affects sewing quality and therefore must be adjusted according to the materials to be sewn and sewing conditions.

The normal relationship between the position of thread guide (Fig.17) and the materials to be sewn is as the following table

Thread guide	1	2	3
	Leftward	Center	Rightward
Position			5
Material weight	Heavy	Medium	Light

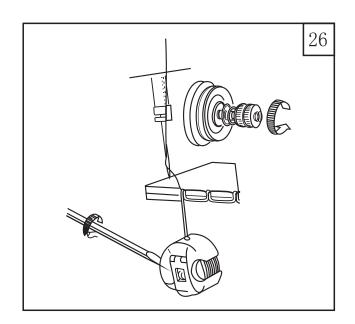


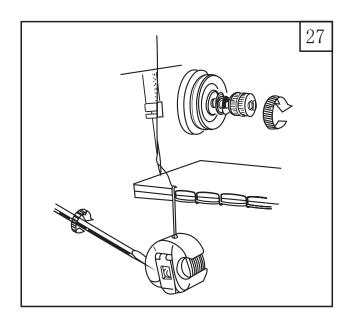
# 5.3 Adjusting the tension of needle thread and bobbin thread

Fig.25 shows the various type of stitch forms probably to happen when sewing.

Normal stitch form should be as shown in Fig.25 (a). When abnormal stitches occur with puckering, loose stitch or thread breakage, the tension of needle thread and bobbin thread must be adjusted accordingly.

- 1) In case of needle thread tension is too strong or bobbin thread tension is too weak, as shown in Fig.25(b), turn the tension regulating thumb nut counterclockwise to decrease the needle thread tension or tighten the bobbin case tension regulating screw to increase the bobbin thread tension(see Fig. 26).
- 2) In case of needle thread tension is too weak or bobbin thread is too strong as shown in Fig.25(c), turn the tension regulating thumb nut clockwise to increase the needle thread tension or turn the bobbin case tension regulating screw counter-clockwise to decrease the bobbin thread tension (see Fig. 27).
- 3) In case of stitches as shown in Fig. 25(d), (e), adjustment can be made with reference to above means.

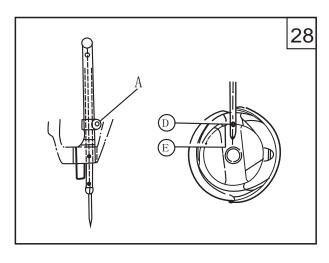


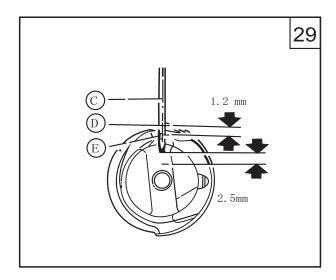


### 6. Adjustment

### 6.1 Timing between needle and rotating hook motion

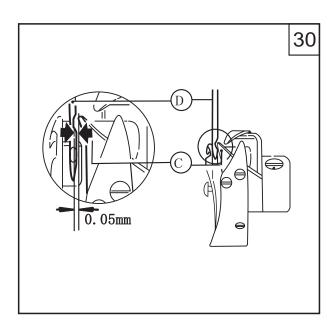
- 6.1.1 Adjusting the needle bar position(Fig. 28)
- 1) Turn the balance wheel to locate needle bar at its lowest position.
  - 2) Remove face plate (or rubber plug).
- 3) Loosen needle bar connecting stud clamping screw A.
- 4) Move needle bar vertically to bring the center of needle eye D coincidence with inside surface E of bobbin case holder.
- 5) Then tighten clamping screw A.



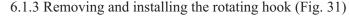


6.1.2 Adjusting rotating hook point timing with needle (Fig. 29)

Turn the balance wheel to locate needle bar to its lowest position, and when needle bar lifted again at 2.5mm from its lowest position, the rotating hook point D should be coincides with needle center line C, and hook point D is 1.2 mm above the upper edge E of needle eye.

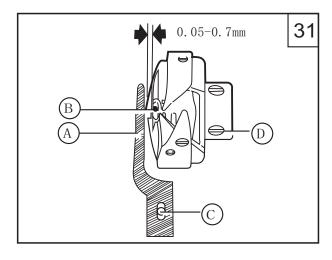


When adjusting the rotating hook point timing also note that clearance between notch bottom of needle D and hook point C must be maintained approx.0.05mm (see Fig. 30)



- 1) Lift the needle bar to its highest position.
- 2) Remove the throat plate, take down the needle and the bobbin case.
- 3) Loosen rotating hook bobbin case holder position bracket screw C and take down position bracket .
  - 4) Loosen two set screws D of rotating hook.
- 5) At this point, the rotating hook can be turned freely on its shaft, and it can be kept to avoid the collision with feed dog support as the feed dog support in its highest, then take down the rotating hook slowly.
- 6) Installing the rotating hook can be done in reverse sequence.
- 6.1.4 Adjusting the clearance between rotating hook and bobbin case holder position bracket (Fig.31)

The projecting flange of the position bracket A should be engaged in the notch B of the bobbin case holder, and maintain a clearance of 0.5-0.7 mm between projecting flange top and the bottom of notch while installing.

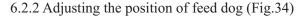


#### 6.2 Adjusting the feed dog

#### 6.2.1 Adjusting height of feed dog

Turn balance wheel to raise the feed dog to its highest position, at that position, the height of feed dog teeth should be projected 0.8-1mm above throat plate top surface as shown in Fig.32. The height of feed dog teeth of 1mm above the throat plate top surface can be taken while sewing heavy material.

When adjusting, loosen feed lifting rock shaft crank clamping screw A (Fig.33) slightly, then turn feed lifting rock shaft crank B till the proper height of the feed dog teeth is achieved, after adjustment, tighten clamping screw A.



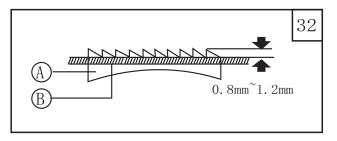
The standard position of feed dog A is that the clearance from the throat plate slit end to the front end of the fully advanced feed dog is 1.5 mm. as shown in Fig.34a

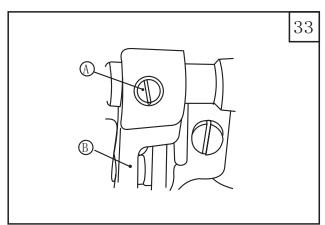
- 1) Fix the feed dog in the position where the feed fully advances.
- 2) Loosen two feed rock shaft crank clamping screws B slightly, as shown in Fig.34b
- 3) Move feed bar to adjust the clearance between the feed dog and throat plate.
- 4) After adjustment, tighten clamping screw B.

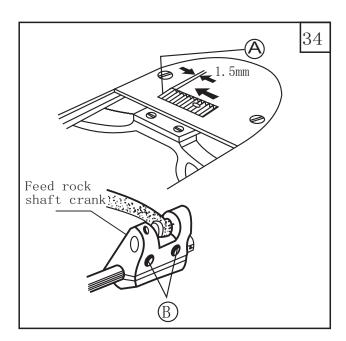
#### 6.3 Adjusting the tension releasing mechanism(Fig.35)

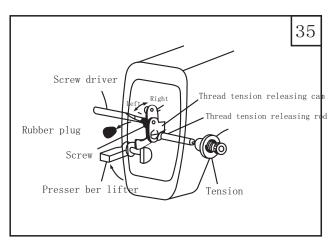
The tension discs should be pushed apart to open when the presser foot is lifted. But the open timing of the tension discs can be adjusted as follows:.

- 1) Remove face plate and the rubber plug at rear side of arm and lossen screw A of the knee lifting lever (left).
- 2) Then the tension releasing cam can be moved leftward or rightward, open later when the cam is moved rightward, open earlier when the cam is moved leftward.
- 3) After adjustment, tighten screw A and replace rubber plug and face plate.









#### 6.4 Adjusting the pressure of presser foot (see Fig.36)

pressure on presser foot is to be adjusted in accordance with material to be sewn.

Loosen lock nut B,b, first, then turn pressure regulating thumb screwA,a,clockwise as shown in Fig.36 to increase the pressure while turn the pressure regulating thumb screw A,a, counter-clockwise to decrease the pressure on presser foot, then tighten lock nut B,b,

#### 6.5 Adjusting top feed mechanism

6.5.1 Adjusting top feed mechanism of machine Model GC6-6

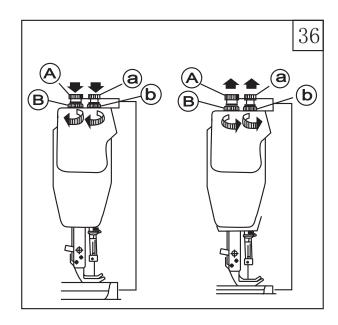
1) Adjusting feed amount

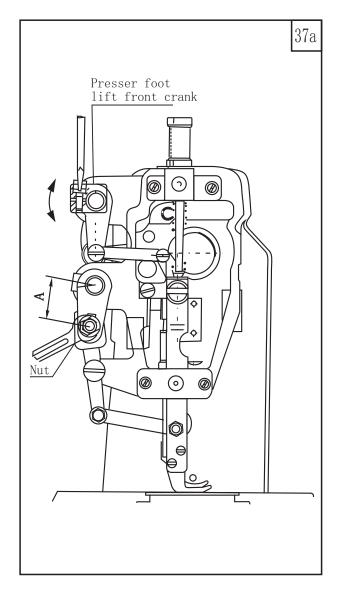
The top feed can be adjusted to synchronize with bottom feed or differential with bottom feed.

Loosen the nut with a spanner, then change the center distance A, as shown in Fig.37a. Increase distance A to increase the top feed amount, decrease the center distance to decrease the top feed amount, after adjusting, tighten the nut. Trial sewing should taken after every adjustment. The adjusting is repeated if necessary, until the required feed style is achieved.

2) Adjusting the alternate lift amount of the presser feet
The lift amount of the walking presser foot is with
5.5 mm when sewing medium or heavy material, and the
presser foot lift amount is 3.5 mm. The lift amount of these
two presser feet can be changed slightly according to the
nature of material or the requirements in sewing. But he
sum tof these two presser feet lift amount is nearly the
same, as the other mechanisms are kept in constant
conditions. In other works, the increasing of walking
presser foot lift amount will diminishes the lift amount of
presser foot, and vice versa.

When adjusting, loosen clamping screw of presser foot lift front crank slightly with a screwdriver and turn the crank to overcome the friction on its shaft, as shown in Fig.37a. The lift amount of walking presser foot can be increased and the lift amount of presser foot is decreased if turn the crank clockwise. The lift amount of walking presser foot is decreased and the lift amount of presser foot is increased when turn the crank counter-clockwise. After adjustment tighten the clamping screw.





3) Adjusting the lift amount of presser foot together with walking presser foot

The lift amount of walking presser foot together with presser foot also can be adjusted slightly. When adjusting, loosen nut with a spanner first, then move the presser foot lift regulating screw to change its center distance B between the presser foot lift shaft, as shown in Fig.39 The lift amount is increased as to shorten the center distance B, and the lift amount is decreased when widen the center distance B, After adjustment, tighten the nut again.

4) Adjusting the clearance betwesser foot and walking presser foot

In sewing operation, for prevent the walking presser foot from striking on presser foot at the end of feeding, a proper clearance C of approx. 1.5mm should be maintained between them, as shown in Fig.40b. When the clearance is too small or too big necessary to adjust, loosen rear crank clamping screw with a screw driver and turn the rock shaft, sa shown in FIG.40A. Turn rock shaft clckwise to decrease the clearance C, and turn the rock shaft counter clockwise to increase the clearance C. After adjustment, tighten clamping screw.

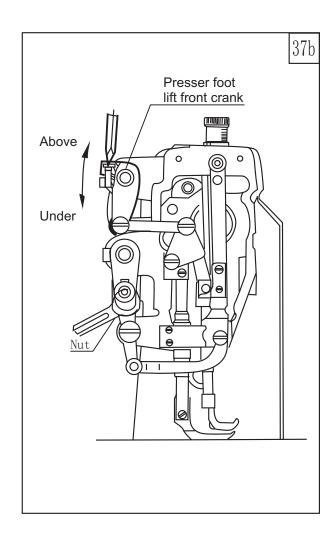
After the adjustment of 2).3) or 4) as mentioned above, an inspection should be made, as to raise the presser feet with presser bar lift, and turn balance wheel slowly to see that the walking presser foot is to strike with other parts, if it is, should be adjusted again.

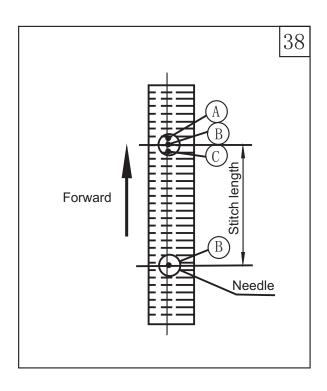
# 6.5.2 Adjusting the feed mechanism of machine Model GC6-7 1) adjusting the feed amount

Top feed must be synchronized with needle feed and bottom feed, this is performed in factory before delivery. If necessary it can be adjusted as follows:

Lift the presser foot with presser bar lifter, set the max stitch length, then turn balance wheel slowly and watch for needle penetration to see if the needle is positioned in the center of feed dog needle hole, at the point B as show in Fig.38, if not, should be adjusted first as shown in Fig.40a. After adjustment, tighten the clamping screw.

Turn the balance wheel continuously until the needle feed end is reached, at that time, the feed amount is correct when the needle is still positioned in the center of feed dog needle hole, at the point B1 as shown in Fig.38. If the needle is positioned at point A in Fig.38, the feed amount is too big, and too small of feed amount while the needle is positioned at point C in Fig.38, all of these should be adjusted accordingly. In adjusting, loosen nut with a spanner, then to change the center distance A, after adjustment tighten the nut.





2) Adujsting the alternate lift amount of the presser feet Lift amount of the walking presser foot is within 5mm and lift amount of the presser foot is 2.5 mm, when sewing medium or heavy materials. The lift amount of these two presser feet can be changed slightly according to the nature of material or the requirements in sewing. The sum of the lift amount of these two presser feet is nearly the same as the other mechanisms are kept in constant condition. In other words, the increasing of walking presser foot lift amount diminishes the lift amount of presser foot, and vice versa.

When adjusting, loosen the presser foot lift front crank clamping screw slightly with a screw driver as shown in Fig.37b, and turn the crank to overcome the friction on its shaft. The lift amount of walking presser foot can be increased and the lift amount of presser foot is decreased if turn the crank clockwise. The lift amount of walking presser foot is decreased and the lift amount of presser foot is increased when turn the crank counter-clockwise. After adjustment, tighten the clamping screw.

3) Adjusting the lift amount of presser foot together with walking presser foot

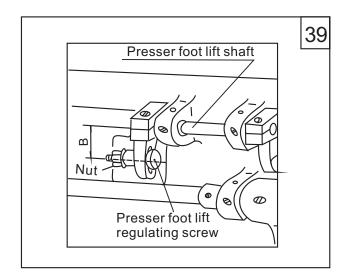
The lift amount of presser foot together with walking presser foot can be adjusted slightly. When adjusting, loosen nut with a spanner foot lift regulating screw to change its center distance between the presser foot lift shaft as shown in Fig.39. The lift amount is increased as to shorten the center distance B, and the lift amount is decreased when to widen the center distance B. After adjustment, tighten the nut again.

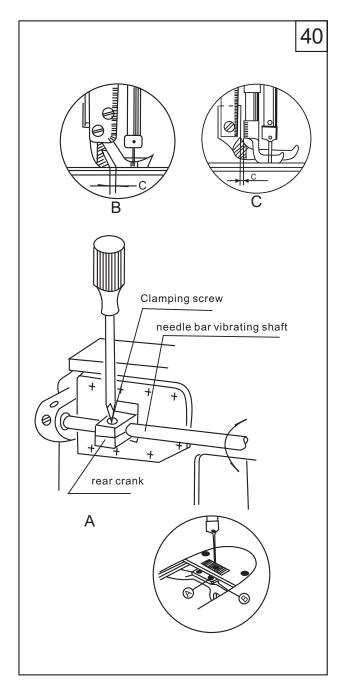
4) Adjusting the clearance between presser foot and walking presser foot

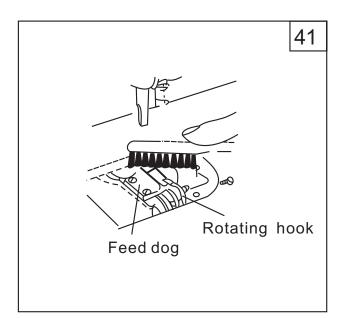
In sewing operation, for prevent the walking presser foot from striking on presser foot at the end of feeding, a proper clearance C of approx. 1.5mm should be maintained between them, as shown in Fig.40c. When the clearance is too small or too big necessary to adjust, loosen rear crank clamping screw with a screw driver and then turn the rock shaft as shown in Fig.40a. Turn the rock shaft clockwise to increase the clearance C, and turn the rock shaft counter-clockwise to decrease the clearance C. After adjustment, tighten the clamping screw.

After adjusting the clearance between presser foot, it is probable the needle to deviate from the center of the feed dog needle hole in feed direction, this can be adjusted to loosen the feed rock shaft crank clamping screw B (Fig. 34b) and shifting the feed dog B (Fig.40d) in direction of feed after adjustment, tighten clamping screw B again, In case the needle is deviated from the feed dog needle hole center in the crosswise direction, loosen twoo feed dog screw A (Fig.40d) and to shift the feed dog B crosswise. After adjustment, tighten the feed dog screw.

After the adjustment of 1)-4) as mentioned above, an inspection should be made, as to raise the presser foot with presser bar lifter and turn the balance wheel slowly to see that the walking presser foot is to strike the other parts. If it may be, should be adjusted again.



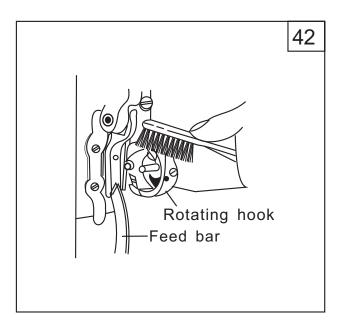




# 7. Periodical cleaning

#### 7.1. Cleaning the feed dog(Fig.41)

Remove the throat plate and clean off all the dust and lint on the feed dog.

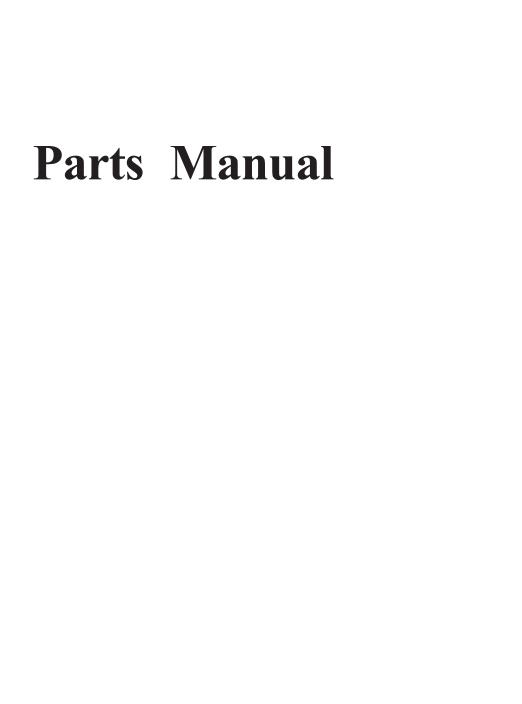


#### 7.2 Cleaning the rotating hook(Fig.42)

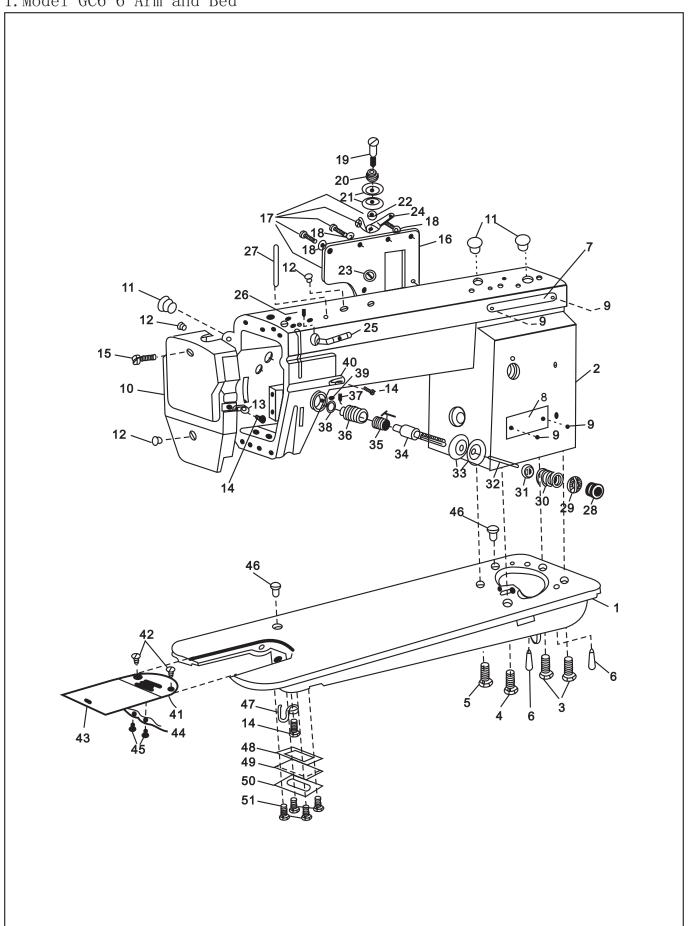
Lay down the machine head and clean the hook, wipe the bobbin case with soft cloth.

# 8. Trouble shooting

Trouble	Possible causes	Remedy
Needle breaking	<ol> <li>Needle too thin or bent.</li> <li>Wrong set of needle.</li> <li>Push or pull the material with hand while sewing.</li> <li>Too heavy the weight of sewing material.</li> </ol>	Change the needle with new one. Refer to the section 4.3. Support the material gently with hand while sewing. Sewing according to the technical specification
Skip stitch	<ol> <li>Needle bent or needle number is not fitted the weight of material.</li> <li>Wrong set of needle.</li> </ol>	Change the needle.  Refer to the section 4.3.
Needle thread breaking	<ol> <li>Wrong needle threading.</li> <li>Needle thread tension too strong.</li> <li>Poor thread.</li> <li>Needle too thin or too rough.</li> </ol>	Refer to the section 4.5. Refer to the section 5.3. Change the thread. Change the needle.
Bobbin thread breaking	<ol> <li>Too strong the bobbin thread tension.</li> <li>Thread wound on bobbin flabbily and uneven.</li> <li>Needle hole of throat plate too rough or have worn.</li> </ol>	Weaken the bobbin thread tension. Wind the bobbin again.  Change throat plate or polish needle hole with #O emery cloth.
Loose stitch	<ol> <li>Unsuitable adjust of needle thread tension and bobbin thread tension.</li> <li>Too weak the tension on thread take-up spring.</li> </ol>	Readjust the needle thread tension and bobbin thread tension.  Adjust thread take-up spring as section 5.1.1.
Puckering	<ol> <li>Too light the weight of material and too long the stitch length.</li> <li>Too strong the thread tension on needle and bobbin.</li> <li>Too strong the pressure on presser foot.</li> </ol>	Adjust suitably.  Adjust tension regulating thumb nut, thread take-up spring and bobbin case tension spring screw.  Loosen pressure regulating thumb screw.

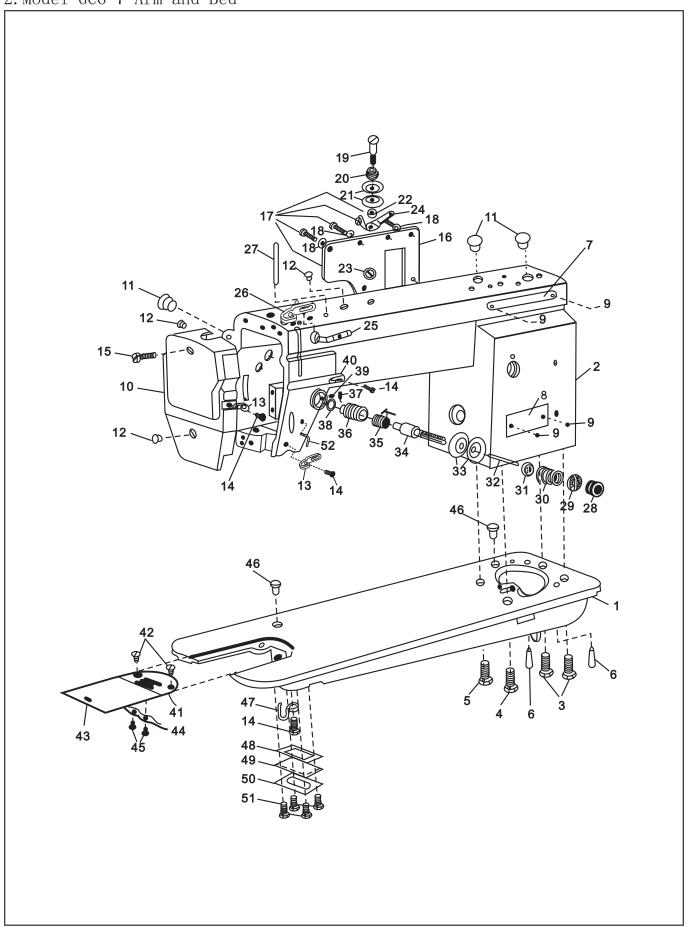


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# 1. Model GC6-6 Arm and Bed

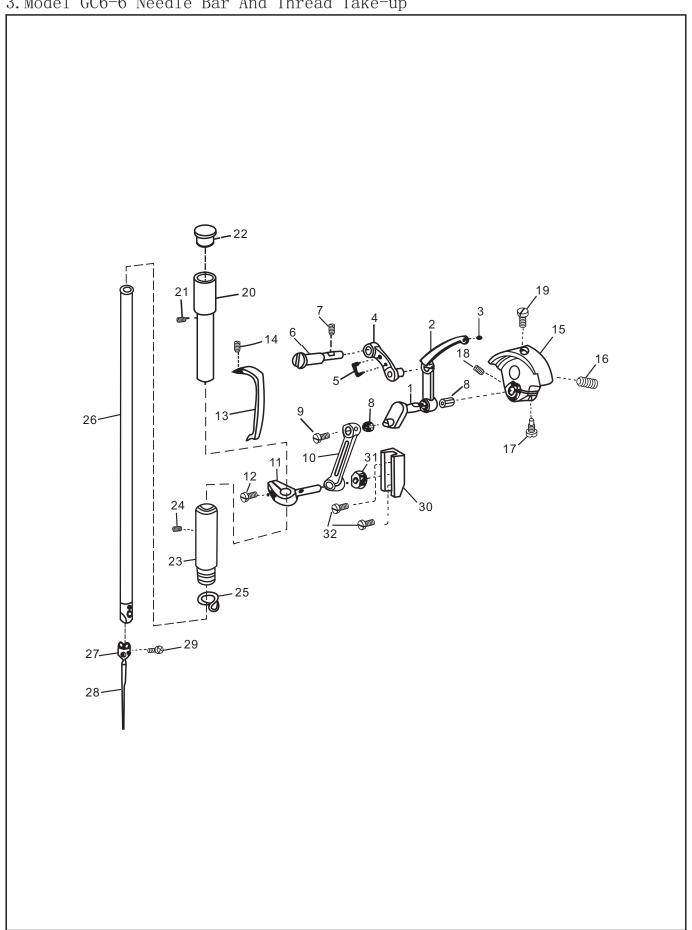
No.	Parts No.	Name of parts	Qty.	Remarks
1	34T4 - 401 - A	Machine bed	1	
2	34T4 - 402 - A	Machine arm	1	
3		Screw	2	M10 28 GB5782-86
4		Screw	1	M12 38 GB5782-86
5	33T4 - 011	Screw	1	M12 38 GB5782-86
6	3314-011	Pin	2	M6 30 GB117-86
7	34T4 - 404	Name plate	1	GC6-6-1 为34T4-404-1
8	34T4 - 404 34T4 - 406	Trade mark	1	GC6-6-1 为34T4-406-1
9			1	Ф2.5 5 GB827-86
I	34T4 - 403a	Nail	4	Ψ2.3 3 GB827-86
10		Face plate	1	
11	22T1 - 003C3	Rubber plug( $\Phi$ 19)	1	
		Rubber plug( $\Phi$ 19)	2	
12	22T1 - 004C4	Rubber plug	1	Ф 11.8
		Rubber plug	1	Ф 11.8
		Rubber plug	1	Ф 11.8
13	22T1 - 003C5	Thread finger	1	
14	22T1 - 003C6	Screw	1	SM9/64" 40 6
		Screw	1	
15	22T1 - 004	Screw	3	SM11/64" 40 10
16	33T4 - 405	Rear cover	1	
17	22T1 - 006	Screw	6	SM11/64" 40 9
18	22T1 - 007	Washer	6	
19	22T1 - 009E1	Screw	1	
20	22T1 - 009E2	Spring	1	
21	22T1 - 009E3	Thread tension discs	2	
22	22T1 - 009E3 22T1 - 009E4	Shim	1	
23	2211 - 009E4			2 CD006
	2271 00055	Split stop ring	1	3 GB896
24	22T1 - 009E5	Thread guide plate	1	
25	22T1 - 010	Three-eye thread finger	1	
26	22T1 - 011	Screw	1	SM11/64" 40 5.5
27	33T1 - 004	Oil pipe	1	
28	22T1 - 012F2	Nut	1	
29	22T1 - 012F10	Stop plate	1	
30	33T4 - 008C1	Spring	1	
31	22T1 - 012F4	Thread tension releasing plate	1	
32	22T1 - 012F9	Pin	1	
33	22T1 - 012F5	Discs	2	
34	22T1 - 012F1	Screw	1	
35	22T1 - 012F6	Thread take-up spring	1	
36	22T1 - 012F7	Thread tension adjusteing bracket	1	
37	22T1 - 012F8	Screw	1	SM9/64" 40 4
38	22T1 - 012F8 22T1 - 012F11	O-type ring	1	51717/07 70 4
39	22T1 - 012F11	Set screw	1	SM15/64" 28 8
40		Thread finger		SW113/04 28 8
41	22T1 - 014	Throat plate	1	
	34T4 - 012-A	-	1	GD 511/64H 40 45
42	22T1 - 020	Screw Slide plate	2	SM11/64" 40 4.5
43	20T1 - 013F1	Slide plate	1	
44	20T1 - 013F2	Spring	1	
45	20T1 - 013F3	Screw	2	
46	1WF1 - 032	Oil plug	2	
47	33T1 - 030-A	Position finger for oil wick	1	
48	33T1 - 032-A	Seal ring	1	
49	33T1 - 033-A	Cover	1	
50	33T1 - 034-A	Press plate	1	
51	22T7 - 015	Screw	4	SM9/64" 40 11



# 2. Model GC6-7 Arm and Bed

No.	Parts No .	Name of parts	Qty.	Remarks
1	34T4 - 401 - A	Machine bed	1	
2	34T4 - 402 - A	Machine arm	1	
3		Screw	2	M10 28 GB5782-86
4		Screw	1	M12 38 GB5782-86
5	33T4 - 011	Screw	1	M12 38 GB5782-86
6		Pin	2	M6 30 GB117-86
7	34T4 - 404	Name plate	1	34T4-404-1
8	34T4 - 406	Trade mark	1	34T4-406-1
9	34T4 - 403a	Nail	4	Ф2.5 5 GB827-86
10		Face plate	1	
11	22T1 - 003C3	Rubber plug(⊕ 19)	1	
		Rubber plug( $\Phi$ 19)	2	
12	22T1 - 004C4	Rubber plug	1	Ф 11.8
		Rubber plug	1	Ф 11.8
		Rubber plug	1	Ф 11.8
13	22T1 - 003C5	Thread finger	1	
14	22T1 - 003C6	Screw	1	SM9/64" 40 6
		Screw	1	
15	22T1 - 004	Screw	3	SM11/64" 40 10
16	33T4 - 405	Rear cover	1	
17	22T1 - 006	Screw	6	SM11/64" 40 9
18	22T1 - 007	Washer	6	
19	22T1 - 009E1	Screw	1	
20	22T1 - 009E2	Spring	1	
21	22T1 - 009E3	Small thread tension discs	2	
22	22T1 - 009E4	Shim	1	
23		Split stop ring	1	3 GB896
24	22T1 - 009E5	Thread guide plate	1	
25	22T1 - 010	Three-eye thread finger	1	
26	22T1 - 011	Screw	1	SM11/64" 40 5.5
27	33T1 - 004	Oil pipe	2	
28	22T1 - 012F2	Nut	1	
29	22T1 - 012F10	Stop plate	1	
30	33T4 - 008C1	Spring	2	
31	22T1 - 012F4	Thread tension releasing plate	1	
32	22T1 - 012F9	Pin	1	
33	22T1 - 012F5	Thread teasion plate	4	
34	22T1 - 012F1	Screw	1	
35	22T1 - 012F6	Thread take-up spring	1	
36	22T1 - 012F7	Thread tension adjusting bracket	2	
37	22T1 - 012F8	Screw	1	SM9/64" 40 4
38	22T1 - 012F11	O-type ring	1	
39	22T1 - 013	Set screw	1	SM15/64" 28 8
40	22T1 - 014	Thread finger	1	
41	34T4 - 012-A	Throat plate	1	
42	22T1 - 020	Screw	1	SM11/64" 40 4.5
43	20T1 - 013F1	Slide plate	3	
44	20T1 - 013F2	Spring	1	
45	20T1 - 013F3	Screw	6	
46	1WF1 - 032	Oil plug	6	
47	33T1 - 030-A	Position finger for oil wick	1	
48	33T1 - 032-A	Seal ring	1	
49	33T1 - 033-A	Seal cover	2	
50	33T1 - 034-A	Press plate	1	
51	22T7 - 015	Screw	1	SM9/64" 40 11
52	35T4-405	Big Thread finger	1	

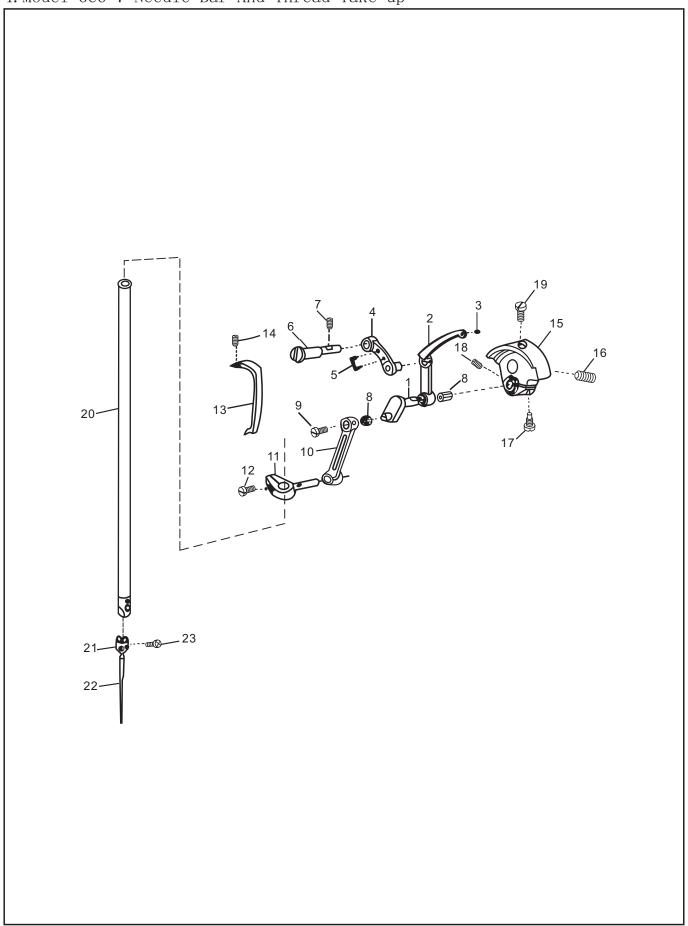
# 3. Model GC6-6 Needle Bar And Thread Take-up



# 3. Model GC6-6 Needle Bar And Thread Take-up

No.	Parts No .	Name of parts	Qty.	Remarks
1	33T1 - 001	Thread take-up crank	1	
2	33T1 - 004B1	Thread take-up lever	1	
3	33T1 - 004B2	Thread take-up lever eyelet bushing	1	
4	33T1 - 003A1	Thread take-up lever link	1	
5	33T1 - 003A2	Thread take-up lever link oil wick	1	Ф2 30
6	33T1 - 002	Thread take-up lever link hinge pin	1	
7	J0 0 40	Thread take-up lever link hinge pin set screw	1	SM15/64" 28 10
8	19242/8	Needle bearing	2	8 12 8
9	22T2 - 001A6	Needle bar connecting link cap screw	1	
10	33T1 - 014	Needle bar connecting link	1	
11	130032	Needle bar connecting stud	1	
12	22T2 - 001A9	Needle bar connecting stud clamping screw	1	SM9/64" 40 6
13	33T4 - 007	Thread take-up lever guard	1	
14	22T2 - 004	Thread take-up lever guard screw	1	SM11/64" 40 5.5
15	33T1 - 006C1	Needle bar crank	1	
16	33T1 - 006C2	Needle bar crank set screw	1	
17	33T1 - 006C3	Thread take-up crank clamping screw	1	
18	22T2 - 005B3	Thread take-up crank position screw	1	SM1/4" 40 7
19	61 - 04 - 01/B206	Needle bar crank position screw	1	
20	22T2 - 008	Needle bar bushing(upper)	1	
21	J0 0 35	Needle bar bushing(upper)set screw	1	SM15/64" 28 4.5
22	22T2 - 011	Needle bar bushing(upper)rubber plug	1	
23	33T1 - 01611	Needle bar bushing(lower)	1	
24	22T2 - 013	Needle bar bushing(lower)set screw	1	SM15/64" 40 2.7
25	33T1 - 01612	Needle bar bushing(lower)thread guard	1	
26	33T1 - 017	Needle bar	1	
27	22T2 - 015	Needle bar thread guide	1	#
28	1F - 009	Needle	1	DP 17 21 <sup>#</sup>
29	22T1 - 017	Needle set screw	1	SM11/8" 44 4.5
30	33T1 - 012	Needle bar connecting stud slide block guide-way	1	
31	33T1 - 013	Needle bar connecting stud slide block guide-way	1	
32	22T2 - 019	Needle bar connecting stud slide block guide-way screw	2	SM11/64" 40 8

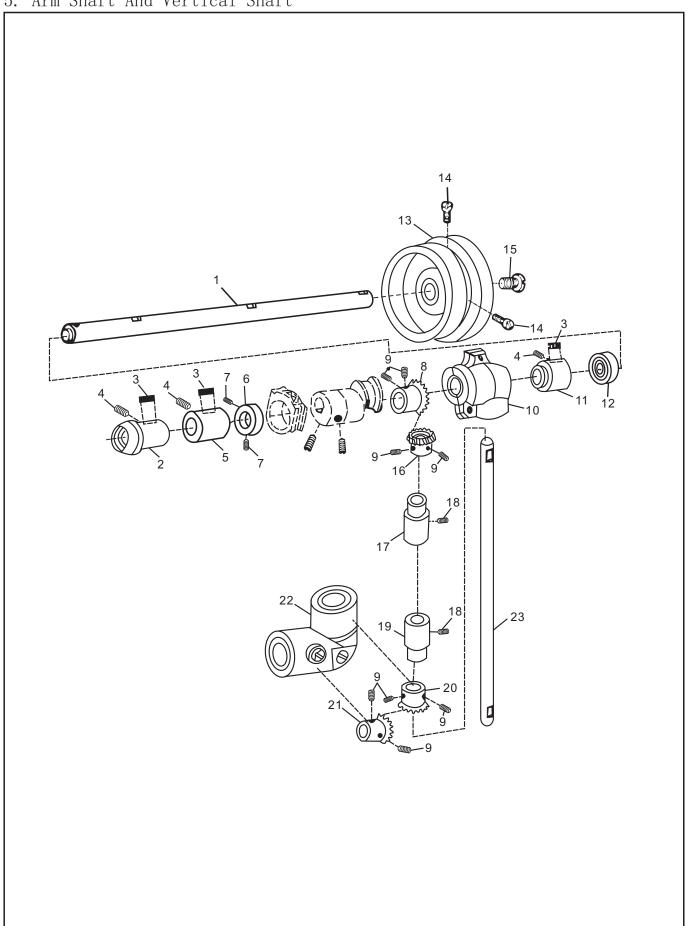
4. Model GC6-7 Needle Bar And Thread Take-up



# 4. Model GC6-7 Needle Bar And Thread Take-up

No.	Parts No .	Name of parts	Qty.	Remarks
1	33T1 - 001	Thread take-up crank	1	
2	33T1 - 004B1	Thread take-up lever	1	
3	33T1 - 004B2	Thread take-up lever eyelet bushing	1	
4	33T1 - 003A1	Thread take-up lever link	1	
5	33T1 - 003A2	Thread take-up lever link oil wick	1	Ф 2 30
6	33T1 - 002	Thread take-up lever link hinge pin	1	
7	J0 0 40	Thread take-up lever link hinge pin set screw	1	SM15/64" 28 10
8	19242/8	Needle bearing	2	8 12 8
9	22T2 - 001A6	Needle bar connecting link cap screw	1	
10	33T1 - 014	Needle bar connecting link	1	
11	130032	Needle bar connecting stud	1	
12	22T2 - 001A9	Needle bar connecting stud clamping screw	1	SM9/64" 40 6
13	33T4 - 007	Thread take-up lever guard	1	
14	22T2 - 004	Thread take-up lever guard screw	1	SM11/64" 40 5.5
15	33T1 - 006C1	Needle bar crank	1	
16	33T1 - 006C2	Needle bar crank set screw	1	
17	33T1 - 006C3	Thread take-up crank clamping screw	1	
18	22T2 - 005B3	Thread take-up crank position screw	1	SM1/4" 40 7
19	61 - 04 - 01/B206	Needle bar crank position screw	1	
20	33T1-017	Needle bar	1	
21	22T2 - 015	Needle bar thread guide	1	#
22	1F - 009	Needle	1	DP 17 21 <sup>#</sup>
23	22T1 - 017	Needle set screw	1	SM11/8" 44 4.5

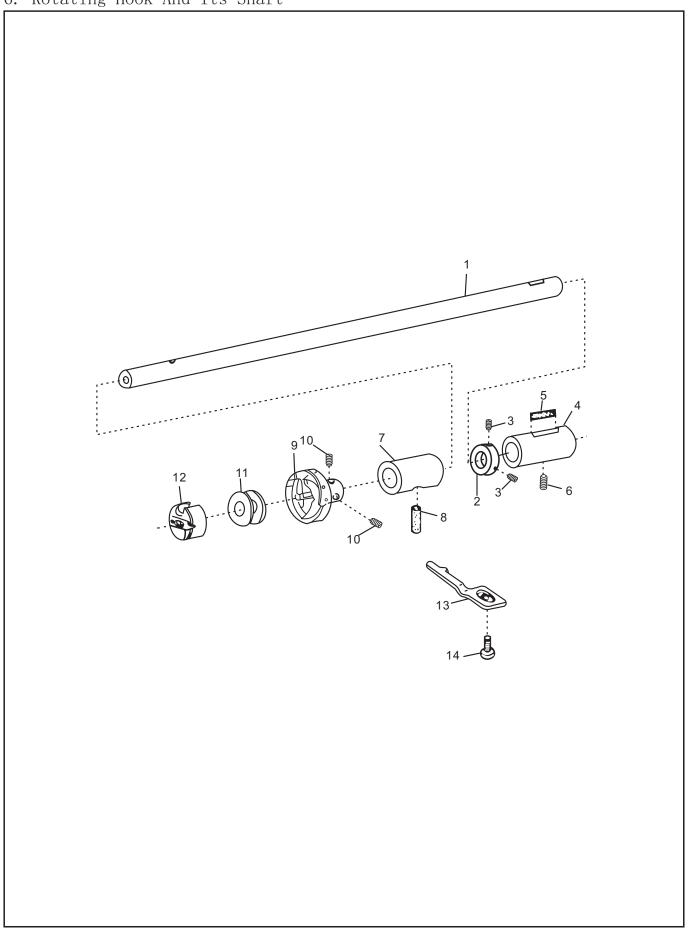
# 5. Arm Shaft And Vertical Shaft



# 5. Arm Shaft And Vertical Shaft

No.	Parts No .	Name of parts	Qty.	Remarks
1	33T1 - 008	Arm shaft	1	
2	33T1 - 007D1	Arm shaft flanged bushing(front)	1	
3	33T1 - 007D2	Arm shaft bushing oil pad(felt)	3	
4	JO 0 40	Arm shaft bushing set screw	3	SM15/64" 28 10
5	33T1 - 009E1	Arm shaft bushing (middle)	11	
6	22T3 - 002B1	Arm shaft collar	1	
7	22T3 - 002B2	Arm shaft collar set screw	2	SM1/4" 40 4
8	22T3 - 010Ea1 - 2	Arm shaft bevel gear	1	
9	22T2 - 005B3	Bevel gear set screw	8	SM1/4" 40 7
10	33T1 - 010F	Bevel gear case(upper)complete	1	
11	33T1 - 011G1	Arm shaft bushing(rear)	1	
12	22T3 - 006F	Arm shaft bushing(rear)oil seal assembly	1	
13	33T1 - 024	Balance wheel	1	
14	22T2 - 007C2	Balance wheel set screw	2	SM15/64" 28 15
15	22T3 - 008	Arm shaft screw	1	SM5/16" 24 12
16				SIVI3/10 24 12
	22T3 - 01E2a2-2	Vertical shaft bevel gear(upper)	1	
17	33T1 - 025Q1	Vertical shaft bushing(upper)	1	CM 15 / CAU 29 10
18	JO 0 40	Arm shaft bushing set screw	2	SM15/64" 28 10
19	33T1 - 023P1	Vertical shaft bushing(lower)	1	
20	22T3 - 010E2b2 - 2	Vertical shaft bevel gear(lower)	1	
21	22T3 - 010E2b1 - 2	Rotating hook shaft bevel gear	1	
22	33T1 - 022N	Bevel gear case(lower)assembly	1	
23	33T1 - 026	Vertical shaft	1	

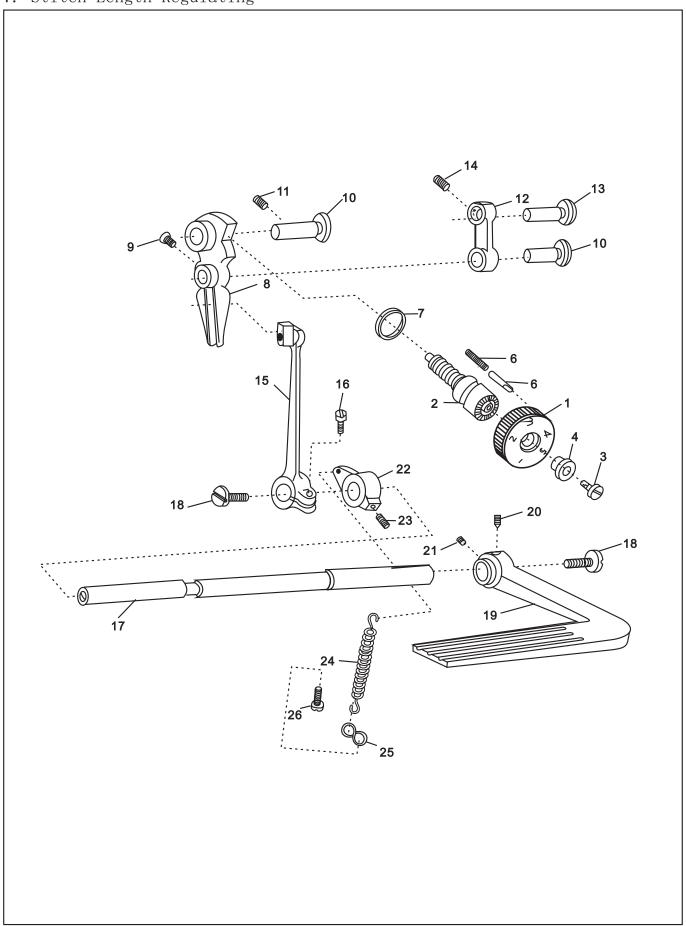
6. Rotating Hook And Its Shaft



# 6. Rotating Hook And Its Shaft

No.	Parts No .	Name of parts	Qty.	Remarks
1	33T1 - 020L	Hook shaft complete	1	
2	22T4 - 002B1	Collar for hook shaft	1	
3	J0 0 35	Screw	2	SM15/64" 28 4.5
4	33T1 - 021M1	Rear bushing	1	
5	33T1 - 021M2	Felt	1	
6	J0 0 81	Screw	1	SM15/64" 28 7.5
7	33T1 - 019K1 - A	Front bushing	1	
8	33T1 - 019K2 - A	Felt	1	
9	33T1 - 018J	Hook complete	1	
10	33T1 - 018J3	Screw	3	SM11/64" 40 8
11	33T1 - 027	Bobbin	1	
12	33T1 - 028R	Bobbin case complete	1	
13	33T1 - 029	Position finger	1	
14	22T4 - 015	Screw	1	SM11/64" 40 10

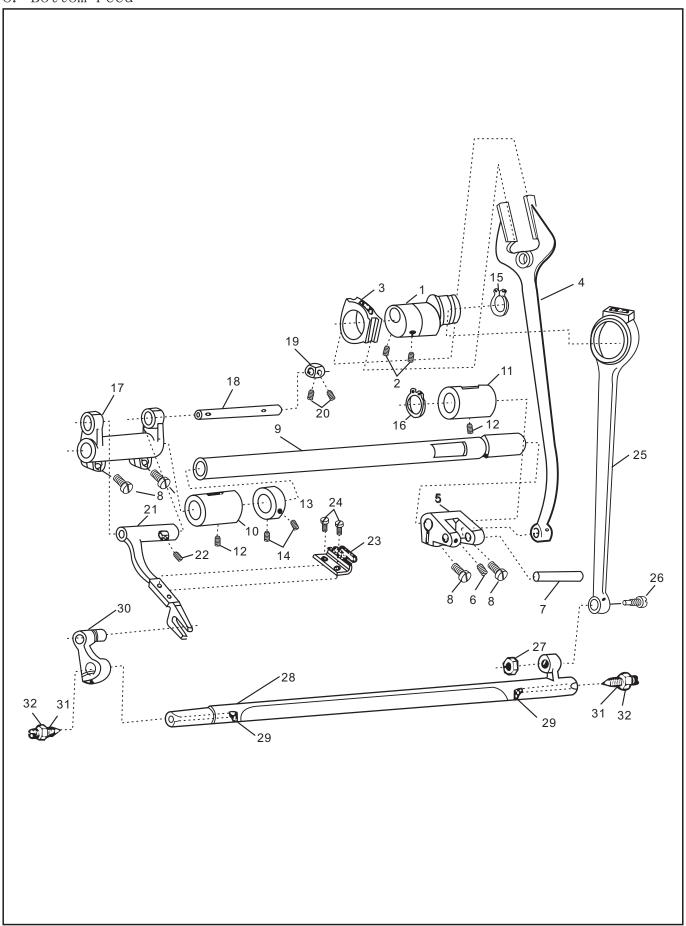
# 7. Stitch Length Regulating



## 7. Stitch Length Regulating

No.	Parts No .	Name of parts	Qty.	Remarks
1	33T2 - 012	Stitch length dial	1	33T2-012-1
2	33T2 - 011	Stitch length adjusting screw bar	1	
3	22T5 - 006C3	Screw	2	SM3/16" 28 13
4	22T5 - 007	Rubber plug	1	
5	22T5 - 008	Stop pin	1	
6	22T5 - 009	Spring	1	
7		O-type ring	1	O 14 2.4
8	33T2 - 013 -A	Stitch length adjusting swing bar	1	GC6-6-1 为 36T2-022
9	17T5 - 010	Set screw	1	SM1/4" 40 9
10	33T2 - 024 -A	Hinge pin	2	
11	J0 .0 81	Screw	1	SM15/64" 28 7.5
12	33T2 - 025 -A	Stitch length link	1	
13	33T2 - 026 -A	Pin	1	
14	22T2 - 005B3	Set screw	1	SM1/4" 40 7
15	33T2 - 19C	Reverse feed swing lever complete	1	
16	22T6 - 001A1b	Screw	1	SM3/16" 28 12
17	33T2 - 020	Shaft for feed lever	1	51415/10 26 12
18	17T5 - 019	Screw	2	SM2/(CII 22 10
19	17T5 - 015	Reverse feed lever	1	SM3/66" 32 10
20	17T5 - 017	Set screw	1	07.51.5/648
	17T5 - 016			SM15/64" 28 8
21		Set screw	1	SM15/64" 28 6.5
22	33T2 - 021	Reset lever	1	
23	6A6 - 08A	Screw	1	SM1/4" 40 12
24	33T2 - 022	Coil spring	1	
25	33T2 - 023	Set hook for spring	1	
26	22T1 - 006	Screw	1	SM11/64" 40 9

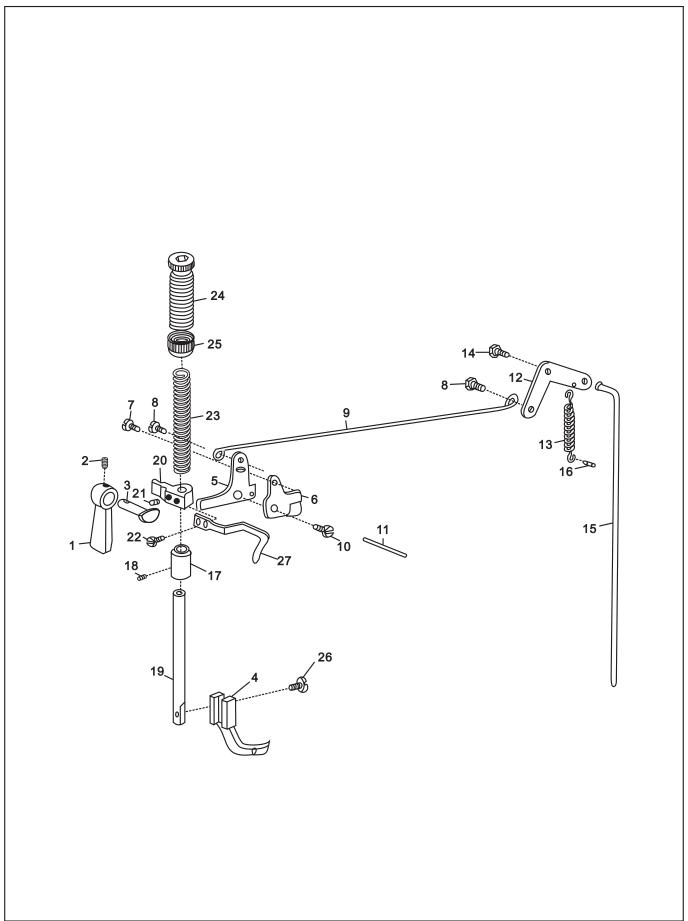
# 8. Bottom Feed



#### 8. Bottom Feed

No.	Parts No .	Name of parts	Qty.	Remarks
1	33T2 - 14 - A	Feed cam	1	
2	22T1 - 013	Screw	2	SM15/64" 28 8
3	22T3 - 009D1a2	Fork slide block complete	1	
4	33T2 - 17 - A	Fork	1	
5	34T2 - 202 - A	Feed crank	1	
6	22T6 - 001A1b	Screw	1	SM11/64" 40 4.5
7	34T2 - 203	Pin	1	
8	22T6 - 001A1b	Set screw	2	SM3/16" 28 15
9	33T2 - 008 - A	Feed shaft	1	
10	33T2 - 028 - A	Front bushing	1	
11	33T2 - 027 - A	Rear bushing	1	
12	J0 0 81	Screw	2	SM15/64" 28 7.5
13	22T3 - 002B1	Collar for arm shaft	1	
14	22T2 - 005B3	Screw	2	SM1/4" 40 7
15		Stop ring	1	GB894.1-86-20
16		Stop ring	1	GB894.1-86 -14
17	33T2 - 029 - A	Front crank for feed	1	
18	33T2 - 006	Feed dog shaft	1	
19	33T2 - 007	Collar	1	
20	22T1 - 012F8	Screw	2	SM9/64" 40 6
21	33T2 - 005	Feed dog support	1	
22	61 - 04 - 01/B3-Z1	Screw	2	SM1/8" 40 4.5
23	61 - 04 - 01/B7	Feed dog	1	51411/6 40 4.5
24	J0 0 51	Screw	2	SM1/8" 40 5.5
25	33T2 - 018B - A	Link	1	514170 10 3.3
26	17T4 - 002	Screw	1	
27	J0 0 63	Nut	1	SM9/32" 28
28	33T2 - 001	Shaft for feed dog lift	1	5115,32 20
29	3312 001	Oil wick	2	Ф 35
30	33T2 - 004A	Feed dog lift crank conplete	1	Ψ 33
31	33T2 - 002	Screw	2	SM3/8" 28 31
32	33T2 - 002	Nut	2	51415/6 26 31

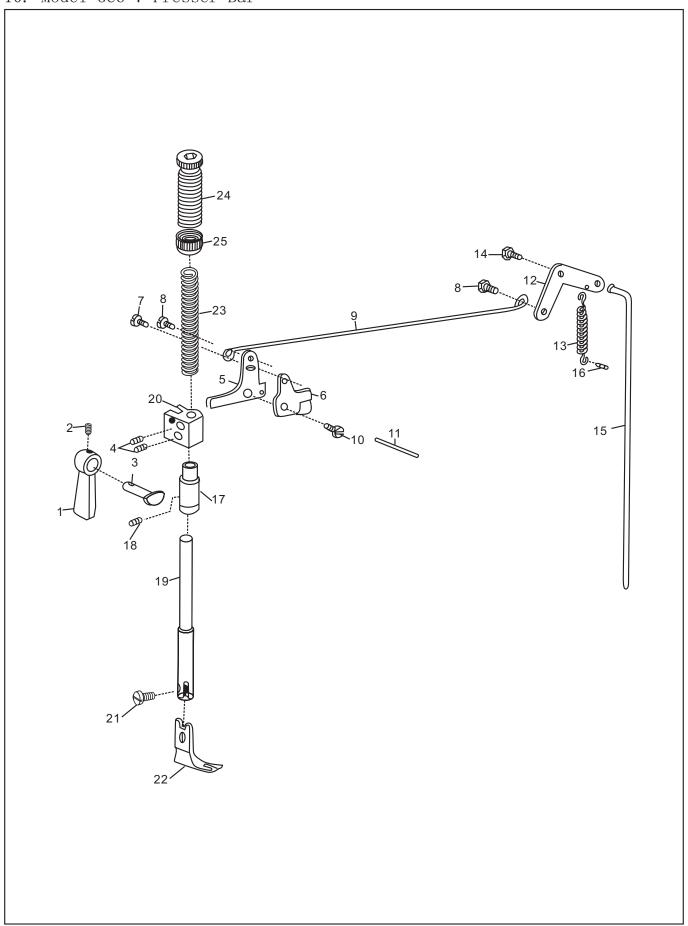
## 9. Model GC6-6 Presser Bar



#### 9. Model GC6-6 Presser Bar

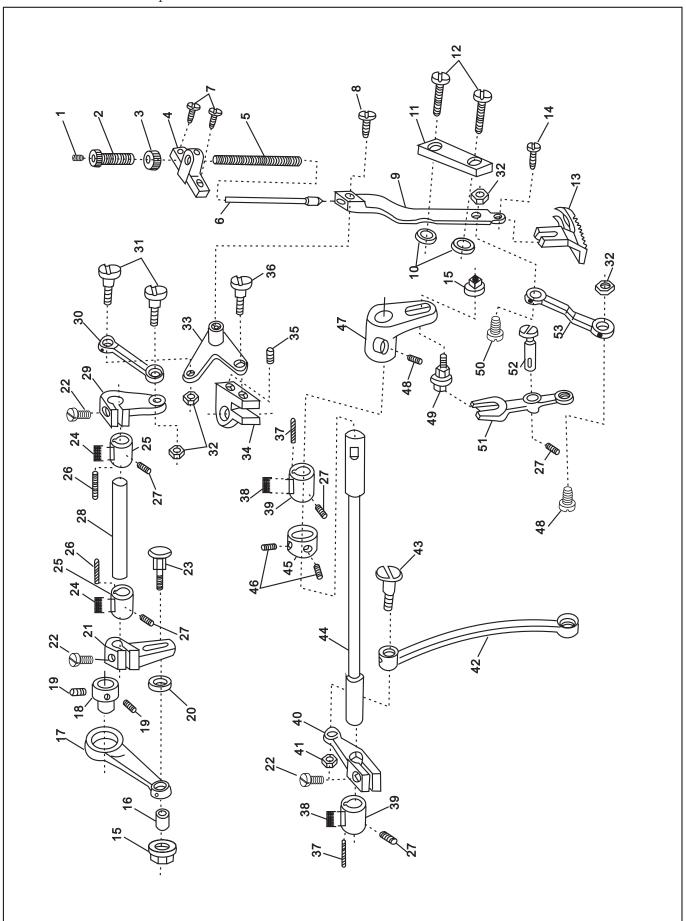
No.	Parts No .	Name of parts	Qty.	Remarks
1	34T3 - 003	Presser bar lifter	1	
2	22T7 - 001A2	Presser bar lifter position screw	1	SM11/64" 40/6
3	33T3 - 004	Presser bar lifting cam	1	
4	34T3-306	Presser foot	1	
5	22T7 - 004B1a	Knee lifter lever(left)	1	
6	22T7 - 004B1b	Tension releasing cam	1	
7	22T7 - 004B1c	Knee lifter lever(left)screw	2	SM11/64" 40/6.5
8	22T7 - 004B12	Knee lifter link hinge screw	1	SM3/16" 28 /7
9	22T7 - 004B3	Knee lifter link	1	
10	22T7 - 005A	Tension releasing cam hinge screw	1	SM15/64" 28 / 13
11	22T7 - 006	Tension releasing rod	1	
12	22T7 - 007C1	Knee lifter lever(left)(right)	1	
13	22T7 - 007C2	Knee lifter lever(left)(right)spring	1	
14	22T7 - 005B	Knee lifter lever (left)(right)hinge screw	1	SM15/64" 28 / 10
15	33T3 - 001	Knee lifter lever lifting rod	1	
16	22T7 - 008	Knee lifter bellcrank(right)spring connecting pin	1	
17	34T3 - 035	Presser bar bushing	1	
18	22T1 - 013	Presser bar bushing set screw	1	
19	34T3 - 303	Presser bar	1	
20	22T7 - 011D1	Presser bar guide bracket	1	SM15/64" 28/8
21	22T1-013	Presser bar guide bracket set screw	1	51/113/04 28/8
22	22T2-004	Slack thread regulator set screw	1	SM15/64" 40/5.5
23	34T3-302	Presser bar spring	1	310113/04 40/3.3
24	34T3-301	Pressure regulating thumb screw	1	
25	22T7-014E2	Pressure regulating thumb screw lock nut	1	
26	22T7 - 015	Presser foot screw	1	SM9/64" 40/11
27	22T7 - 013	Slack thread regulator	1	3113701 13711

#### 10. Model GC6-7 Presser Bar



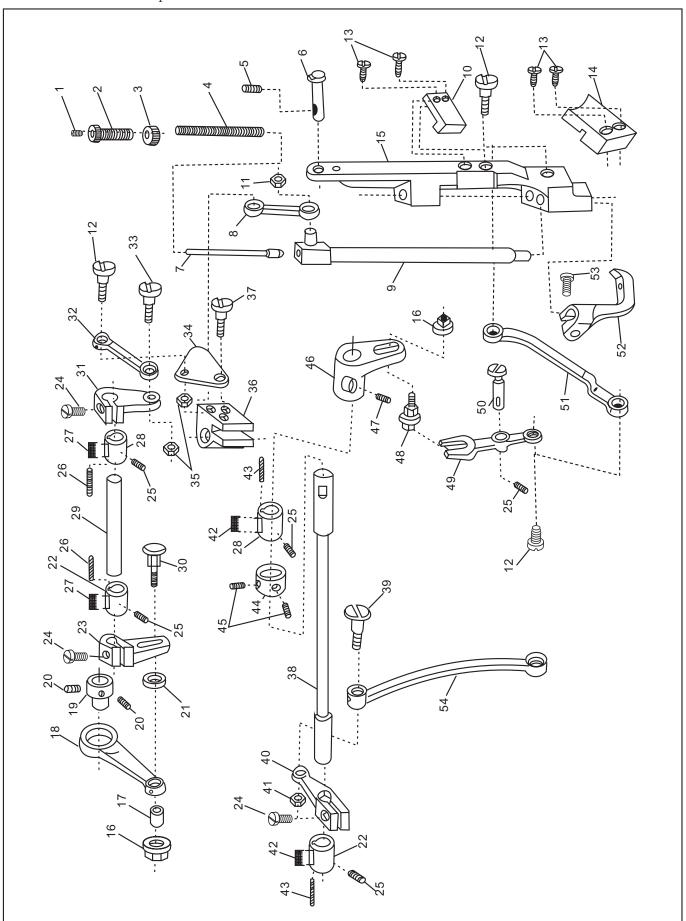
#### 10. Model GC6-7 Presser Bar

No.	Parts No .	Name of parts	Qty.	Remarks
1	34T3 - 003	Presser foot llifter	1	
2	22T7 - 001A2	Presser foot llifter position screw	1	SM11/64" 40/6
3	33T3 - 004	Presser foot llifting cam	1	
4	JO O 40	Presser bar guide bracket set screw	1	
5	22T7 - 004B1a	Knee lifter lever(left)	1	
6	22T7 - 004B1b	Tension releasing cam	1	
7	22T7 - 004B1c	Knee lifter lever(left)screw	2	SM11/64" 40/6.5
8	22T7 - 004B2	Knee lifter link hinge screw	1	SM3/16" 28 /7
9	33T3 - 004B3	Knee lifter link	1	
10	22T7 - 005A	Tension releasing cam hinge screw	1	SM15/64" 28 / 13
11	22T7 - 006	Tension releasing rod	1	
12	22T7 - 007C1	Knee lifter lever(left)(right)	1	
13	22T7 - 007C2	Knee lifter lever(left)(right)spring	1	
14	22T7 - 005	Knee lifter lever (left)(right)hinge screw	1	SM15/64" 28 / 10
15	33T3 - 001	Knee lifter lever lifting rod	1	
16	22T7 - 008	Knee lifter bellcrank (right) spring connecting pin	1	
17	35T3 - 303	Presser bar bushing	1	
18	22T2 - 013	Presser bar bushing set screw	1	
19	35T3 - 302	Presser bar	1	CM15/6/11 20/0
20	34T3 - 301	Presser bar position block	1	SM15/64" 28/8
21	22T7 - 015	Presser foot clamping screw	1	SM9/64" 40/11
22	22T7 - 013	Slack foot	1	51017/04 40/11
23	34T3 - 302	Presser bar spring	1	
24	34T3 - 301	Pressure regulating thumb screw	1	
25	22T7 - 014E2	Pressure regulating thumb screw lock nut	1	



## 11. Model GC6-6 Top feed

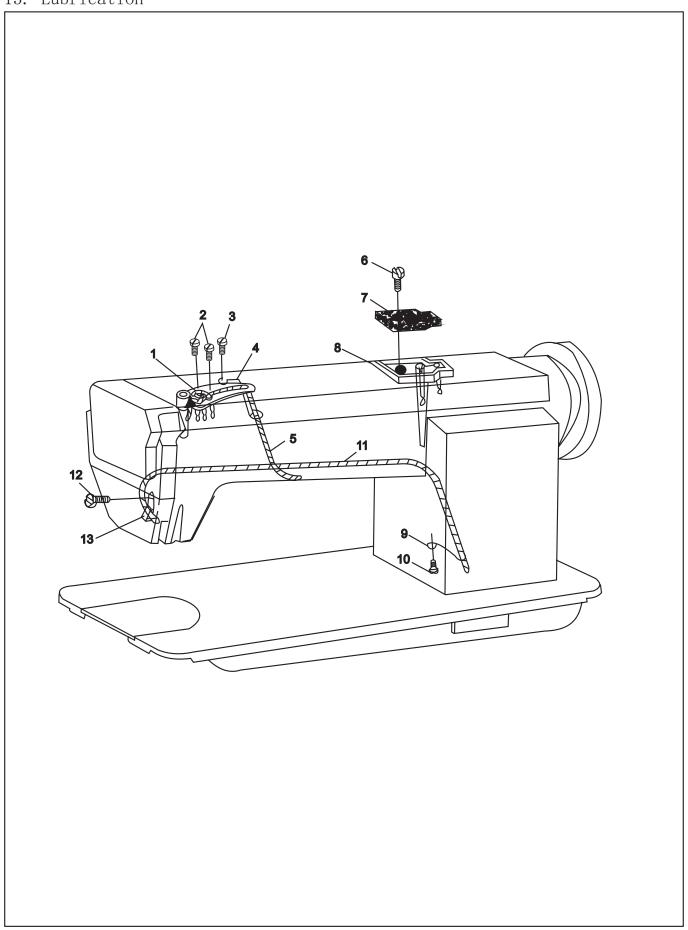
No.	Parts No.	Name of parts	Qty.	Remarks
1	35T5 - 501	Walking presser foot pressure regulating thumb screw wick	1	
2	35T5 - 502	Walking presser foot pressure regulating thumb screw	1	
3	35T5 - 503	Walking presser foot pressure regulating thumb screw lock nut	1	
4	35T5 - 504	Walking presser foot pressure regulating thumb screwy bracket	1	
5	35T5 - 505	Walking presser foot pressure regulating rod spring	1	
6	35T5 - 506	Walking presser foot pressure regulating rod	1	
7	01/13504	Walking presser foot pressure regulating thumb bracket screw	2	
8	34T5 - 525b	Screw	1	
9	34T5 - 510	Walking presser foot link	1	
1 0	34T5 - 511	Walking presser foot mik Walking presser foot guideway base plate	2	
1 1	34T5 - 512		1	
1 2	34T5 - 525	Walking presser foot guideway	2	
1 3	34T5 - 515	Walking presser foot guideway screw	1	
	22T5 - 015	Walking presser foot	1	
1 4		Walking presser foot screw	I	
1 5	34T5 - 518	Presser foot lift regulating screw nut	2	
1 6	34T5 - 519	Presser foot lift regulating screw bushing	1	
1 7	34T5 - 520	Presser foot lift eccentric	1	
1 8	34T5 - 516	Presser foot lift eccentric set screw	1	
1 9	01/B602	Washer	2	
2 0	34T5 - 521	Presser foot lift rear crank	1	
2 1	34T5 - 517	Presser foot lift rear crank clamping screw	1	
2 2	34T5 - 540	Presser foot lift regulating screw	3	
2 3	34T5 - 522	Oil pad	1	
2 4	34T5 - 536b	Presser foot lift and walking shaft bushing	2	
2 5	61 - 04 - 01/B06	Thread take-up lever link oil wick	1 / 1	
2 6	34T5 - 536c	Presser foot lift and walking shat bushing set screw	2	
2 7	JO 0 · 35	Presser foot lift shaft	5	
2 8	34T5 - 537		1	
2 9	34T5 - 535	Presser foot lift shaft front crank	1	
3 0	34T5 - 534	Presser foot lift connecting rod	1	
3 1	34T5 - 507	Presser foot lift and walking hinge screw	2	
3 2	34T5 - 508	Nut	4	
3 3	34T5 - 526	Presser foot lift bellcrank	1	
3 4	34T5 - 528	Presser foot lift position block	1	
3 5	01/B308	Presser foot lift position block set screw	1	
3 6		Presser foot bellcrank hinge screw	1	
	34T5 - 527	Thread take-up lever link oil wick	2	
3 7	34T5 - 536c	Oil par	2	
3 8	34T5 - 536b	Presser foot lift and walking rear shaft bushing	2	
3 9	34T5 - 538a	Walking presser foot rear crank	2	
4 0	34T5 - 523	Walking presser foot connecting rod hinge screw nut	1	
4 1	61-04-01/B06	Walking presser foot connecting rod	1	
4 2	34T5 - 524	Walking presser foot connecting rod hinge screw	1	
4 3	17T4 - 002	Walking presser foot walking shaft	1	
4 4	34T5-539	Walking presser foot walking shaft collar	1	
4 5	34T5 - 532		1	
4 6	22T3-002B2	Walking presser foot walking shaft collar set screw	2	
4 7	34T3-533	Walking presser foot front crank	1	
4 8	01/B902	Walking presser foot front crank set screw	1	
4 9	34T5 - 529	Walking presser foot slide block assembly	1	
5 0	34T5 - 513a	Presser foot lift and walking hinge screw	2	
5 1	34T5 - 529	Walking presser foot forked connection	1	
5 2	34T5-530	Walking presser foot forked connection stud	1	
5 3	34T5-514	Walking presser foot walking connection rod	1	
	0110011		-	



#### 12. Model GC6-7 Top feed

No.	Parts No.	Name of parts	Qty.	Remarks
1	34T5-501	Oil felt	1	
2	35T5-503	Screw	1	
3	34T5-503	Nut	1	
4	35T5-501	Presser bar spring		
5	J0.0.40	Screw		
6	35T5-504	Needle bar move stand shaft		
7	35T5-505	Spring bar		
8	35T5-507	Presser foot up and down link		
9	35T5-508	Connector		
10	6WF5-002	Slot for slide block	3	
11	33T1-013	Slide block	4	
12	34T5-507	Screw	1	
13	22T2-019	Screw	1	
14	35T5-511	Rail block	2	
15		Needle bar move stand	1	
	6WF5-001		1	
16	34T5-518	Nut	1	
17	34T5-519	Washer	2	
18	34T5-520	Link	1	
19	34T5-516	Presser foot up and down eccentric	2	
20	01/B602	Screw	1	
21	34T5-521	Washer	3 5	
22	34T5-538a	Rear bushing	2	
23	34T5-517	Rear crank	$\begin{bmatrix} 2 \\ 2 \end{bmatrix}$	
24	34T5-540	Screw	$\frac{2}{2}$	
25	J0.0.35	Set screw		
26	34T5-536c	Cotton wick		
27	34T5-536b	Oil felt	1 1	
28	34T5-536a	Front bushing	1 1	
29	34T5-537	Presser foot up and down shaft	1	
30	34T5-522	Screw	1	
31	34T5-535	Front bushing	2	
32	34T5-534	Link	1	
33	34T5-513b	Bolt		
34	34T5-506	Presser foot up and down lever		
35	34T5-506	Nut		
36	35T3-301	Presser bar set block		
37	34T5-527	Bolt	$\begin{bmatrix} 1\\2 \end{bmatrix}$	
		Needle bar move shaft	$\begin{bmatrix} 2\\2 \end{bmatrix}$	
38	34T5-539			
39	17T4-002	Screw	2	
40	34T5-523	Rear crank		
41	61-04-01/B06	Screw		
42	34T5-538b	Felt	1	
43	34T5-538c	Cotton wick	1	
44	34T5-532	Collar	1	
45	22T3-002B2	Screw	1	
46	34T5-533	Front crank for needle bar move	1	
47	34T5-541	Screw		
48	34T5-531	Slide block complete	1	
49	34T5-529	Fork bar		
50	34T5-530	Pin		
51	35T5-512	Needle bar move link		
52	35T5-502	Small presser foot		
53	22T2-004	Screw		
54	5WF4-003	Swing presser foot link		
		I .	1	

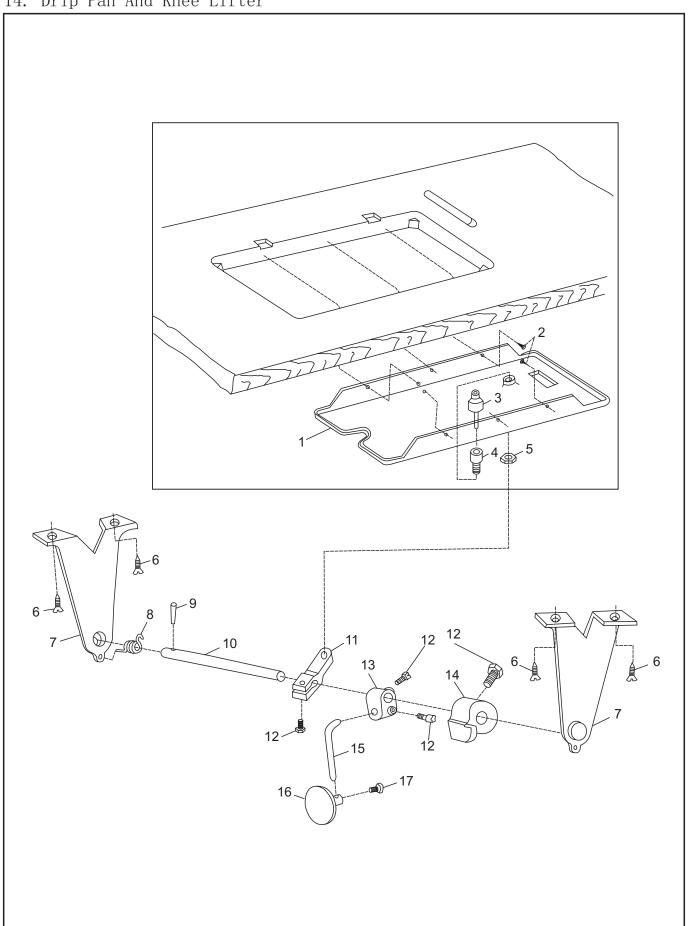
## 13. Lubrication



#### 13. Lubrication

No.	Parts No .	Name of parts	Qty.	Remarks
1	22T8 - 011C	Oil wick fixing plate assembly	1	SM/64" 40 11
2	22T8 - 012	Oil wick fixing plate screw	2	SM9/64" 40 4.5
3	22T8 - 011C4	Oil wick fixing hook screw	1	
4	22T8 - 011C5	Oil wick fixing hook	1	
5	22T8 - 0113	Oil wick of fixing plate	1	SM11/64" 40 16
6	33T4 -005B2	Small oil reservoir screw	1	
7	33T4 - 005B3	Small oil reservoir oil pad	1	
8	33T4 - 005B1	Small oil reservoir	1	
9	33T4 - 010	Long oil wick fixing hook	1	SM11/64" 40 5.5
10	22T2 - 004	Long oil wick fixing hook screw	1	
11		Long oil wick	1	
12	22T2 - 004	Long oil wick clamp screw	1	
13	22T8- 016	Long oil wick clamp	1	

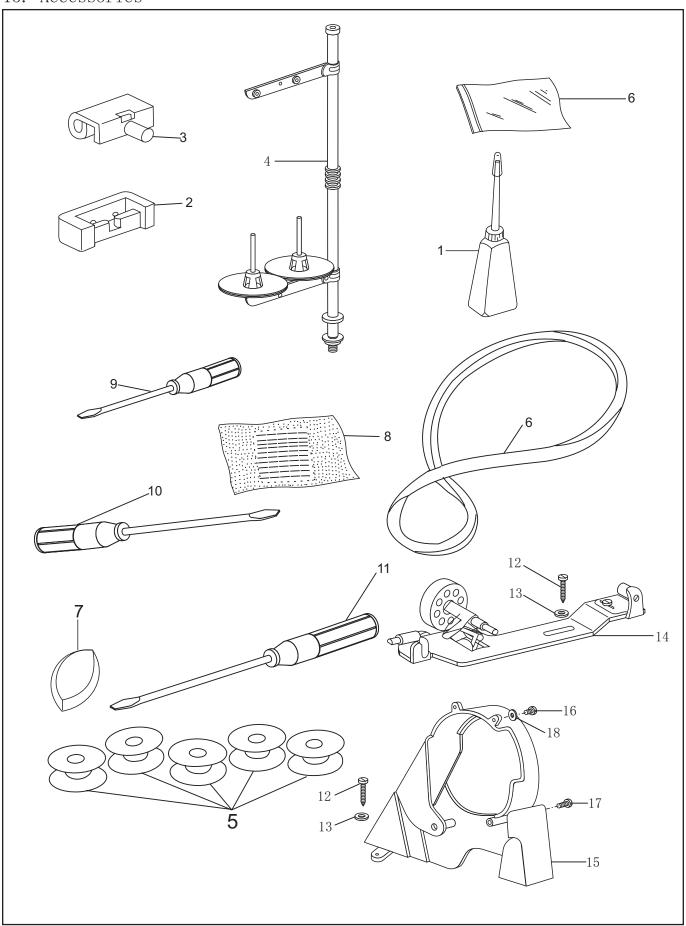
# 14. Drip Pan And Knee Lifter



#### 14. Drip Pan And Knee Lifter

No.	Parts No .	Name of parts	Qty.	Remarks
1	33T5 - 001	Drip pan	1	
2		Nail	6	L22
3	33T5 - 003	Knee lifter pushing rod	1	
4	33T5 - 004	Knee lifter pushing rod guide bushing	1	
5		Hexagon nut	1	M12 1 GB6172-86
6		Round head wood screw	4	ST4.8 25 GB5284-85
7	33T5 - 005	Knee lifter rock shaft bracket	2	
8	33T5 - 006	Knee lifter rock shaft spring	1	
9		Knee lifter rock shaft spring pin	1	销 3 12 GB119-86
10	33T5 - 007B1	Knee lifter rock shaft	1	
11	33T5 - 002	Knee lifting crank	1	
12		Knee lifter bellcrank joint set screw	4	M8 12 GB821-88
13	33T5 - 008	Knee lifter bellcrank joint	1	
14	33T5 - 011E1	Knee lifter rock shaft stop dog	1	
15	33T5 - 009	Knee lifter bell crank	1	
16	33T5 - 010F	Knee lifter knee plate assembly	1	
17		Knee lifter knee plate set screw	1	M6 10 GB5782-86

## 15. Accessories



#### 15. Accessories

No.	Parts No .	Name of parts	Qty.	Remarks
1	22T9-012	Oil pot	1	
2	33T1-002	Hinge	2	
3	22T9-007F2	Rubber coat	2	
4	GJX-2	Spool stand complete	1	
5	33T1-027	Bobbin	5	
6		Parts bag	1	
7		Arm vibration proof washer bock	4	
8		Needle	1Pack	
9	33TF-015	Screw driver(small)	1	
10	33TF-014	Screw driver	1	
11	33TF-013	Screw driver(big)	1	
12		Wood screw	4	
13		Washer	4	
14	S14420020	Thread winde complete	1	
15	33TF-021	Belt guard complete	1	
16		Screw	2	
17		Screw	2	
18		Washer	2	



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# GC6-6 // -7



This machine may only be operated by adequately trained operators only after having completely read and understood the instruction manual.

Parts are subject to changes in design without prior notice.











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